Vol. X, No. 9 September, 1934

66

SOAP

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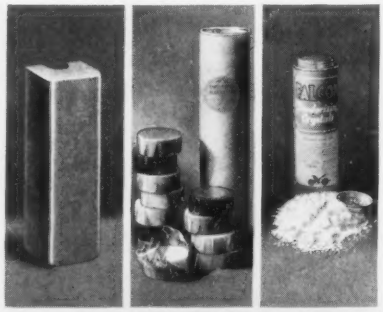

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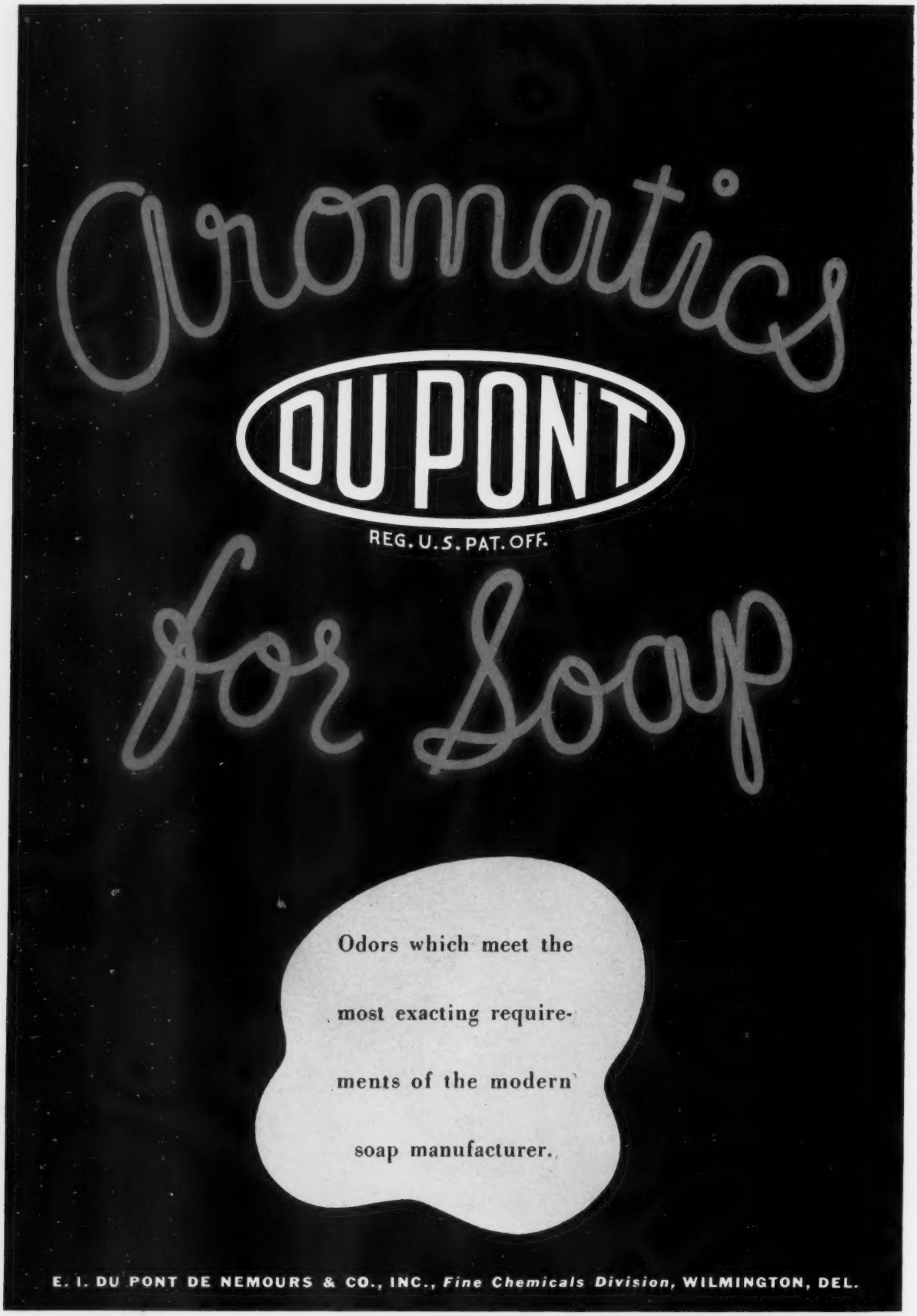
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SOAP

Reg. U. S. Patent Office

Volume X
Number 9

September, 1934

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NRA CODE GRAPHIC ARTS INDUSTRY 1934

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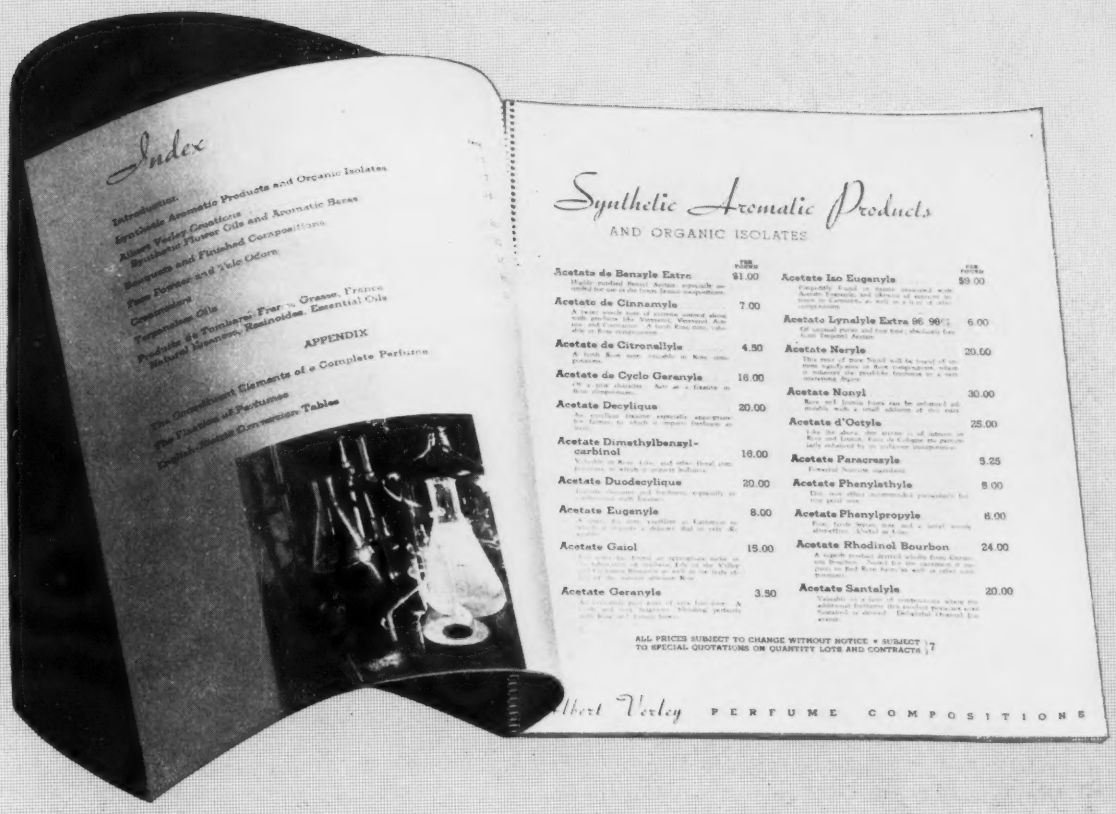

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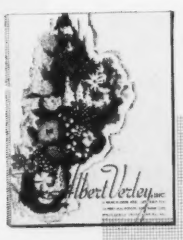

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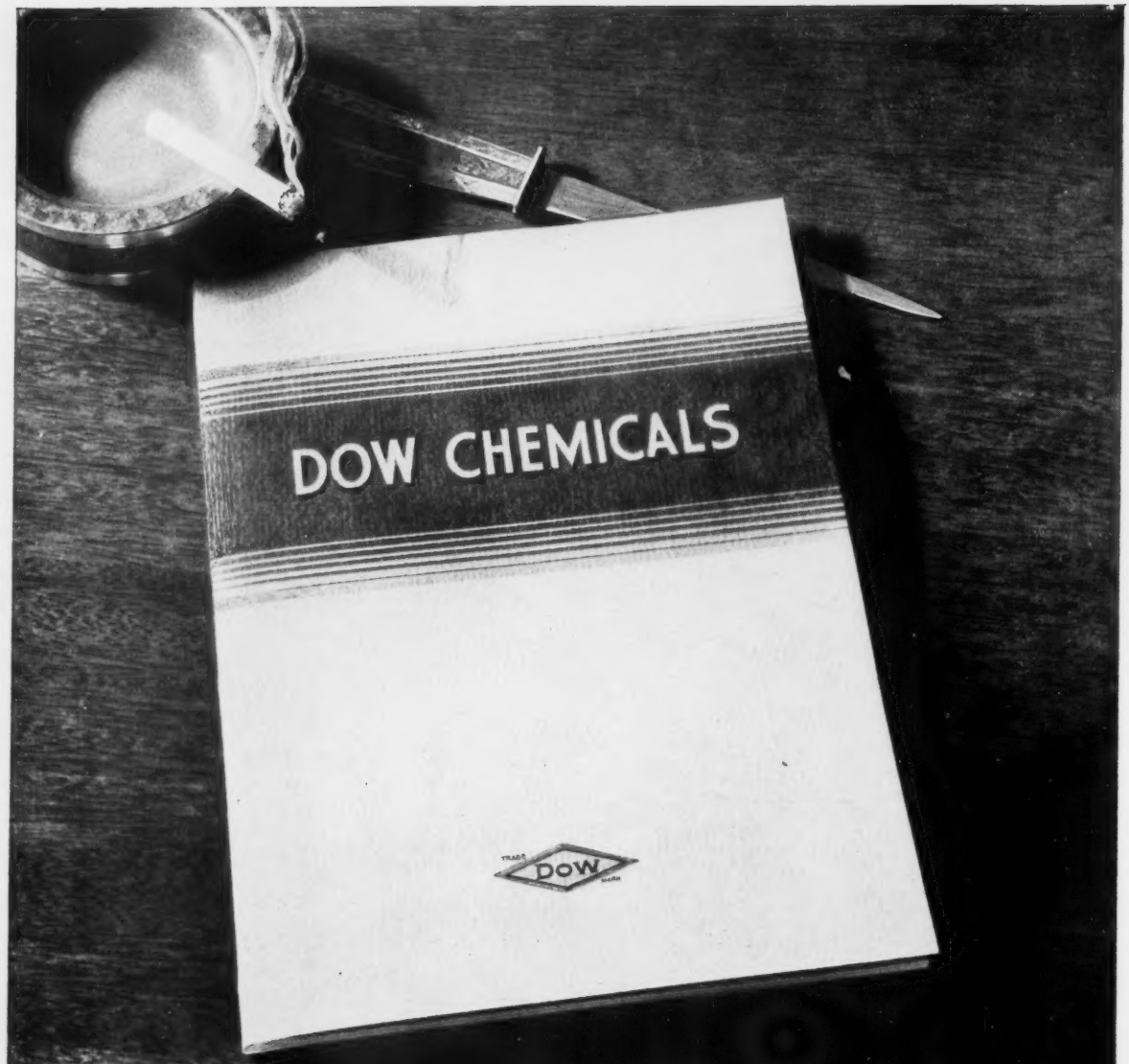

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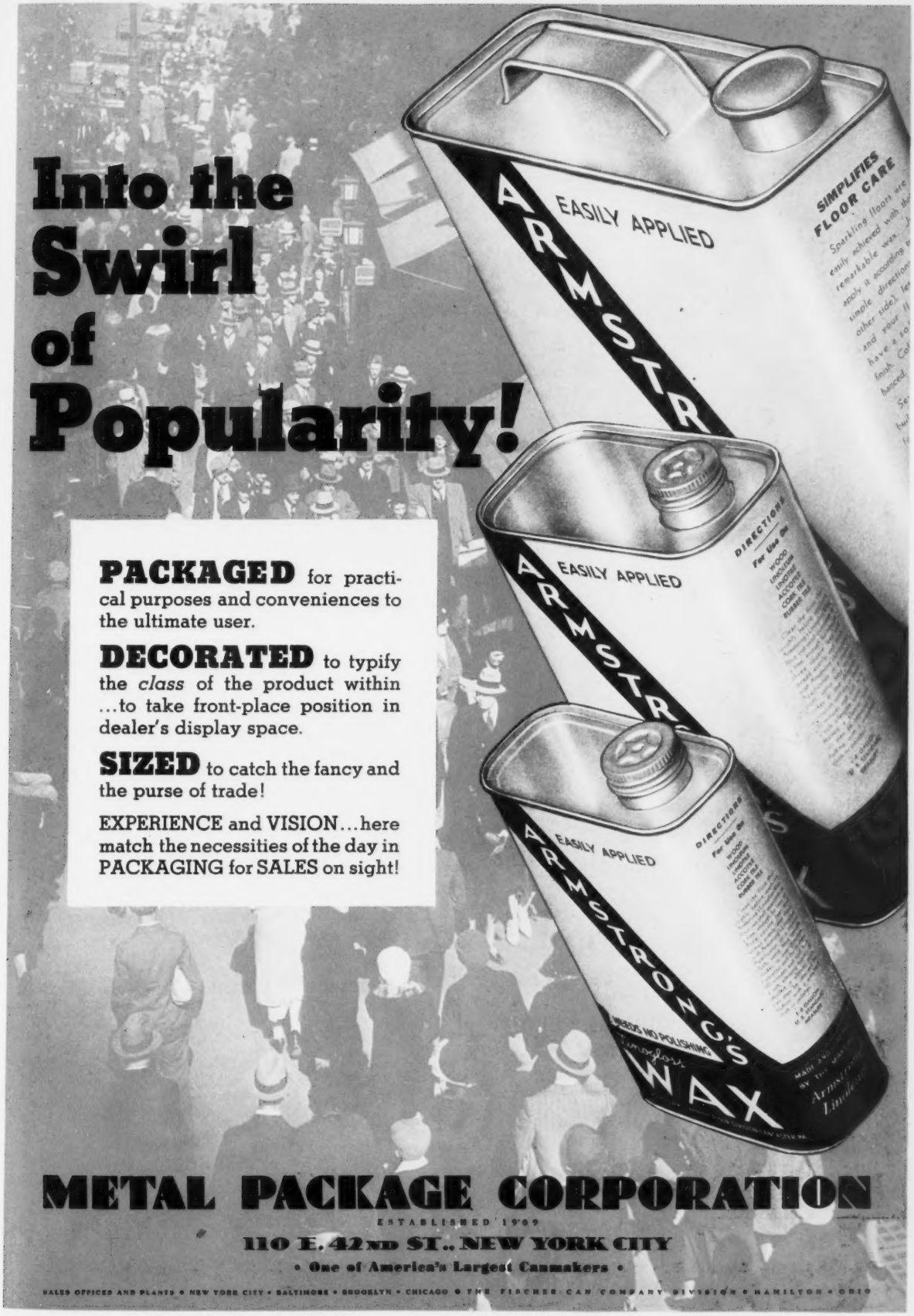
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A LITTLE retrospection and most of us would make a similar prayer. But speaking of the CONSTANT MOTION CARTONER in particular, we reverse the old darky's plea and insist that the cartoner be judged by what it "is done," not by glittering promises of what it might do. We are not ticklish about its record.

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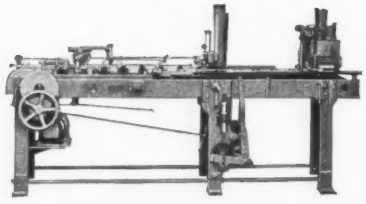

Our laundry and toilet soap presses are used almost exclusively by manufacturers the world over, for pressing cakes of soap of every shape, size and quality. Write for catalogue.

CONSTANT MOTION CARTONER

NRA CODE GRAPHIC ARTS INDUSTRY 1934

SOAP

Volume Ten Number Nine

EDITORIAL

AT LAST the regulations covering the collection of the excise tax on coconut, palm, and other imported oils, have been issued. In our opinion they represent a masterpiece of governmental red tape. They should make the tax lawyers smack their lips in anticipation of new cases. They obviously go far beyond the intent of Congress when it included the tax in the Revenue Act of 1934. The object to squeeze out every last dime from the tax is quite apparent, even though the squeezing process reaches beyond the original intent of the law. That these regulations will be interpreted altogether on the side of the Bureau of Internal Revenue and enforced with little or no consideration of the manufacturer's problems, is also apparent from what has already taken place in Washington. In its efforts to clamp down and see that all loopholes are plugged up, the Revenue Bureau has done a beautifully involved and complicated job. Unless we miss our guess by a wide margin, the complications are such that it will take more than one court decision to straighten them out.

The best that any manufacturer, large or small, can do is to continue running along, guided as best he can be by Regulations 48 and any subsequent rulings which may be issued by the Bureau until such time as the drastic interpretation of the law is reviewed by the courts. Definite rulings in individual cases may be secured by applying direct to the Bureau of Internal Revenue at Washington, but judging from the present attitude of the Bureau, it is a foregone conclusion any such rulings will be wholly opposed to the interests of the manufacturer.

FROM several leading figures of the soap industry has come the suggestion that manufacturers should lose no time in acquainting the public with the fact that it is now paying a fancy excise tax on various imported oils in the form of higher soap prices. The reason for the higher prices should be placed definitely on the doorstep of the Government,—where it belongs. It is Washington's baby and every soap consumer should know it. The suggestion is that every box, bar, case, bottle, can, or other container for any soap product containing a taxable oil, should carry a label or sticker explaining the reason for the higher price in simple, concise wording. But, first of all, every soap maker should see to it at once that every pound of soap containing taxable oils which leaves his plant, is priced to include the tax whether it was made prior to May 10 or not.

—— ♦ ——

SPECIAL deals for the consumer sponsored by manufacturers appear to be drawing increasing fire of late from retailers in various parts of the country. Naturally, the retailer does not like the manufacturer to stock up the housewife by giving away free goods,—a can or package of this free with a bottle of that. The latest is the condemnation by the Retail Grocers' Association of San Francisco of "deals, deals, and more deals" by soap manufacturers. A comment regarding this subject from the association secretary stated in part as follows: "Some of these days, some soap manufacturer is going to get a bright idea and decide to sell soap at a price and a legitimate profit that will eliminate the deals and in the new deal get the support of the grocer."

We gather from this that the retail grocers of San Francisco do not have the enthusiasm for consumer deals by soap manufacturers which is manifest by the manufacturers themselves in an effort to boost their tonnages. In working out these various and sundry deals and combinations, the one thing which the manufacturer seems to ignore just about completely is the mental attitude of the retailer, both toward the deal in question and their line in general. Dealer antagonism does not help sales. It takes its toll from every dollar spent for advertising. Do the results warrant the antagonism constantly being built up?

—♦—

ALMOST simultaneously comes the resumption of national advertising for Fairy Soap of Gold Dust, and for Cashmere Bouquet of Colgate. Not since 1922 has Fairy appeared in national advertising, and not since the C-P-P merger has Cashmere Bouquet made its appearance likewise. Now they both are being pushed to market with renewed vigor, Fairy in new form, odor, and wrapper, and Cashmere Bouquet in new dress and with the price reduced to ten cents from a quarter. Fairy has always been a medium-priced bath soap. Cashmere Bouquet since it was first introduced back in 1872 has been a luxury item, perhaps the outstanding brand in the higher priced domestic toilet soaps. Now it becomes a ten-cent seller to carry the colors of C-P-P in this class while Palmolive carries them in the five-cent field. At ten cents, it may be destined for the first time in its history to become a leading factor in the large-tonnage toilet soap field.

—♦—

THE first shipment of Japanese toilet soap ever to reach the American market, to our knowledge, is now finding its way into distributing channels on the Eastern seaboard. We are informed that another and larger shipment is now en route. The price at which the first shipment was sold by the importer is reported to be just about half of the present cost of manufacture of an equivalent soap in the United States. Probably it contains a good proportion of Philippine coconut oil. In view of the present three-cent excise tax on this oil and other imported oils, which American soap makers must pay and which Japanese soap makers do not pay, we can understand how this arrival from the Orient will only intensify the enthusiasm for the excise tax among American soapers. And as for those Congressmen who espoused the tax to save the American farmer from competition with cheap Oriental labor in the Philippines,—we wonder if they are too dumb to see the irony of the situation,—or should some good, patient soul explain it to them? (Washington papers please copy!)

—♦—

IF PRESENT listed retail soap prices are to be maintained, then in the light of higher costs, a reduction in the size of soap bars and soap packages must come. What this means to the soap industry in equipment changes, only the soap industry knows. Maybe it was smart policy on the part of one leading manufacturer to sit tight when other nationally advertised toilet soaps rushed to embrace the five-cent price to meet private brand competition.

—♦—

GENERALLY improved economic conditions in the Far East and a more favorable rate of exchange on the dollar have accounted for a considerable expansion in the export of toilet soaps, shaving soaps, as well as various toilet preparations thus far in 1934. The demand for cheap, highly perfumed soaps and cosmetics from China, India, Dutch East Indies, Malaya and the Philippines reflects the fact that the natives now have at least a little money to spend for something else besides food.

—♦—

THE code budget for the soap and glycerine manufacturing industry has been approved by the NRA. Although the NRA has unquestionably lost caste of late, due in part to various unworkable and involved codes, and in part to widespread labor troubles, the soap code is an outstanding exception. Its administration continues to be carried on in an orderly and efficient manner. And while thinking of codes, wages, hours,—we wonder if labor in the soap industry generally realizes how remarkably well off it is.

—♦—

OUR guess is that the professional labor agitators and their amateur cohorts on the inside used one hundred per cent poor judgment in calling a strike last month at Hammond, Indiana. They picked the wrong time, the wrong factory, and the wrong people to fool with. But professional "organizers" must have jobs and there are always dupes to pay "dues".

Who Pays Soap Code Assessments?

R. C. Edlund Tells Who Are Subject to Assessment and How Collections Will Be Made

SINCE assessment for code administration for the Soap and Glycerine Code comes home to every manufacturer in the industry, SOAP asked Roscoe C. Edlund, executive secretary of the industry's Code Authority, for the latest information on this subject. The following is based upon the information supplied by Mr. Edlund.

NRA has now formally approved all recommendations on this subject as made by the Code Authority and as approved by the general meeting of the industry held in Chicago in June. This makes assessment legally collectible from all members of the industry at the rate of 4/10 of one mill per dollar of net sales for 1933, which is the same as 4 cents for each $100, or $40 for each $100,000 of sales of soap, soap products, and glycerin.

Under the new order of the NRA effective September 11, manufacturers and cleansers made with soap and insoluble mineral or minerals as essential ingredients also come under the Soap and Glycerine Code, but as they will be under the Code for only one-quarter of the year, payments required from such manufacturers for 1934 will be only one-quarter as much as that of soap manufacturers, or 1/10 of one mill per dollar of net sales reported for 1933, which is the same as 1 cent for each $100, or $10 for each $100,000 of sales of cleansers of this type. In detail, the following, according to Mr. Edlund, describes who are subject to assessment and how collections will be made:

1. Formal notice of assessment due will be sent to every known manufacturer of soap, soap products, and glycerin, and to every known manufacturer of household cleansers.

2. Soap and soap products, without necessarily being limited to the following, includes laundry soaps; soap chips and flakes; granulated, powdered, and spray soaps; soap powder; washing powder containing soap; soaps for toilet and bath; shaving soaps, shaving creams when made with soap, and shaving powder; potash, soft, liquid, and paste soaps; soap shampoos; soaps for laundries, textile mills, tanneries, and other industrial uses; dry cleaning soaps; and soap stock or soap base. Anybody who makes or processes soap for sale is a soap manufacturer. This includes makers of any of the types of soaps just named. It includes makers of mechanics' hand pastes regardless of whether they make or buy the soap used in such products. It includes makers of liquid soaps who buy soap base and dilute it for sale as liquid soap. It includes importers if in this country they carry on any part of the manufacturing processes. It includes grease collectors and renderers who make soap for sale or exchange. All such are subject to the Code and subject to assessment, legally collectible by the Code Authority.

3. Persons or firms making soaps solely for their own consumption and not for sale are not classified as soap manufacturers. Thus a tannery, a textile mill, a laundry chain, a dry cleaner, a cosmetics manufacturer, a manufacturer of toothpastes, polishes, or blackings, a maker of disinfectants or insecticides, a barber or beauty shop, or any other person who manufactures soap solely for use in the maker's processes or products, is not classified as a soap manufacturer, does not belong under the Code, and is not subject to assessment. However, should any such person or firm sell soap made by it, then such person or firm is classified as a soap manufacturer, comes under the Code, and is subject to assessment for the amount of soap it sells.

4. Soap or cleanser marketers who conduct no part of the processes of manufacturing the soaps, soap products, or cleansers they market, are not classified as manufacturers, do not come under the Code, and are not subject to assessment. Thus the owner of a private brand who has all his soap or cleanser manufacturing done for him by another firm, does not come under the Code and is not subject to assessment. However, if he carries on any part of the manufacturing process, he does come under the Code and must pay his share of Code expense.

5. Under the Code, so-called "one-man" manufacturers are not subject to assessment. Any soap or cleanser manufacturing business operated solely by one individual, who during 1934 has not at any time employed any assistant on either full or part time, is not an "employer" and therefore does not come unde the Code and is not subject to assessment.

6. Manufacturers of cleansers other than those made with soap and insoluble mineral or minerals are not subject to assessment. Manufacturers of bluing, ammonia, and various cleaning compounds are not eligible to accept the Soap Code as individual companies and since they do not come under the Soap Code, are not subject to assessment.

7. Manufacturers of soap or soap products who produce or refine glycerin, and all refiners of glycerin of any grade, are subject to the Code and to assessment on such glycerin. Manufacturers who produce glycerin as a by-product of stearic acid manufacturing, or candle making, or manufacturing other than soap making, are not subject to the Code or to assessment on such glycerin.

8. Every employer whose principal business is in some other industry, but who also manufacturers soap, soap products, and/or glycerin, and/or (if the Cleanser Division becomes effective September 11) cleansers of the type defined above and whose production of these products amounted in net sales during 1933 to $25,000 or more, must pay assessment thereon at the rate above indicated.

9. In the case of an employer whose principal business is in some other industry but who also manufacturers soap, soap products, glycerin, and/or cleansers of the type defined above, in an amount whose net sales during 1933

were less than $25,000, such employer must pay assessment on such net sales at the rate stated unless such sales constituted less than 10 per cent of the total sales of all of the products and/or services of such employer in 1933.

10. Notice of assessment due will be sent to all whose names and addresses are known to the Code Authority office. Failure to receive such notice does not however, relieve a manufacturer from obligation to make payment. Any soap or glycerin manufacturer, and any manufacturer of cleansers of the type defined, who does not receive notification of assessment should, in order to avoid Code violation, communicate on this subject with Roscoe C. Edlund, Code Authority Executive Secretary, 386 Fourth Avenue, New York.

11. All payments made, and all necessary information provided by a manufacturer as to his volume of net sales in 1933, will be strictly confidential to the Executive Secretary of the Code Authority and to the Code Authority's auditor. No member of the Code Authority, no representative of the NRA, and no person outside of the office of the Code Authority and the auditor's office, will have access to individual company reports. The Treasurer of the Code Authority will not see individual company payments or information as to volume of sales.

12. Information as to volume of net sales in 1933 supplied by members of the industry will be reported to the Executive Secretary of the Code Authority on forms signed by an officer of the reporting firm and witnessed by a notary.

13. First payments will be due upon presentation of notice of assessment. Under NRA regulations, payments not made within 30 days will become a violation of the Code and of the requirements of the NRA.

14. First payments may cover either the entire 1934 assessment, or half thereof, or any fraction between one-half and the entire amount. Credited against first payments will be any $10 payment thus far made by anyone in the industry since the Recovery Act became law, for active membership in the Association of American Soap and Glycerine Producers, Inc. Any who have not been members of the Association may upon making their payments to the Code Authority, apply for membership in the Association and designate $10 out of their Code Authority payments to cover the Association's annual membership fee.

15. If the first payment covers only half or some major fraction of the entire 1934 assessment, the third quarter's payment originally scheduled for September 30, will now be billed as of October 31, and the fourth quarter as of December 31. Payments not made within 30 days will become a violation of the Code and of the requirements of the NRA.

16. The rate of assessment, 4/10 of one mill per dollar of sales, is believed to be the lowest thus far approved by the NRA for any manufacturing industry national in scope and as large as, or larger than, the soap and glycerin industry. In addition Code Authorities in few if any industries have been as liberal in exemptions from, and credits against, Code assessments. Every $10 Association membership is credited, and reduces assessment payments by just that much. One-man manufacturers are entirely exempt, although, of course, they can volunteer payment if they desire and a number of them are already $10 Association members. Then again, members of other industries whose soap, cleanser, and glycerin manufacturing is less than 10 per cent of their business, are exempt from legal assessment, providing their soap, cleanser, and glycerin manufacturing is less than $25,000 a year. Many of these are also $10 Association members, and it is hoped that many more will be, but that is entirely voluntary, whereas payment of Code assessments is compulsory.

17. It is by rigid economy in Code administration that assessment has been kept low. Another factor toward this desirable result has been the underwriting of much of the expense involved, by the Association of American Soap and Glycerine Producers, drawing solely upon funds paid to the Association by contributing members and not by the $10-a-year active members. Another factor has been the provision in the Code that any product divisions or geographical sections organized as supplemental thereto meet their own expenses, so that the industry in general is not assessed for supplemental organizations. In addition, no member of the Code Authority is paid a nickel for his time, and until after the June meeting of the whole industry, each such member of the Code Authority has paid all his own travel expense in attending Code Authority meetings. Such travel expense is now definitely limited in amount, though it is now paid from the Code Authority budget.

18. All Code payments received from members of the industry will be deposited by the Executive Secretary in a separate Soap Code Authority bank account. All receipts and expenditures will be audited by a certified public accountant, and the expenditures, which must be within the limits of the budget approved by the industry and by the NRA, are subject to detailed review by the NRA at any time. All officials and employees having anything to do with the handling of Code Authority funds are bonded. The administration of the funds is business-like in every detail, and all accounting and safeguards are in accord with the most approved custom.

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On the theory that catalytic hydrogenation of vegetable oils is a reversible reaction, that hardening occurs in a stepwise saturation of the double bonds, and that the catalyst transforms the heterogeneous system hydrogen-oil-catalyst into a homogeneous phase, the following conclusions may be drawn. Selective saturation increases with increased temperature. Selectivity decreases with increased pressure. The reaction speed rises to a maximum and then falls. The maximum temperature for oleic acid is 170° C. and for linolenic acid 250° C. Reaction with oso-oleic acid increases with rising temperature and decreases with increasing pressure. F. Bloemen. *Fettchem. Umschau* **41,** 95-8 (1934).

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Norwegian whaling companies and the German Ministry for Food Products recently reached an agreement for the sale of 150,000 tons of whale oil at a price of approximately $50 per long ton. A clearing agreement for the payment has been settled by representatives of the foreign department of the Bank of Norway. As a result of the sale, the total Norwegian whaling fleet is fitting out for the coming season in the Antarctic.

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The result of the Kansas City co-operative campaign to increase laundry sales by offering to do 16 pounds of damp wash for 49 cents, has been a marked success. Increase in total sales of all Kansas City laundries for the last week of the campaign were $10,500 more than for the week preceding the drive, and $5,500 more than in the corresponding week of 1933. *Business Week*, August 18, 1934.

Ye Village Soap Plant

As Part of the Colonial Exhibit at the Century of Progress in Chicago

By GEORGE K. DAHLIN

THE ancient art of soap making has been represented in a quaint exhibit as part of the Colonial Village at the Century of Progress, Chicago. The crude implements and rule of thumb method of one hundred and fifty years ago are in striking contrast with modern technical developments in soap manufacture. As the smithy of old was the forerunner of the great steel industry of today, just so the iron soap kettle of the Pilgrims was the foundation upon which the soap industry of today has been built.

According to the legend posted at the exhibit of Ye Village Soap Plant—"The great difficulty in making soap come is the want of judgment of the strength of the lye. If your lye will bear up an egg or a potato so you can see a piece of the surface as big as a sixpence, it is just strong enough." But the difficulty was in making the lye strong enough. To test the lye, a jar filled with the brownish fluid was tested with an egg. If the egg floated just enough to expose a small surface of the egg 'about the size of a sixpence', it registered approval. This was the hydrometer of the Pilgrim fathers.

The manner in which the crude lye was produced is quite well known to soapers. An ash hopper, made from a section of tree trunk, was hollowed out and filled with hard-wood ashes. Over these ashes, rain water from a nearby tub was poured into the hollow by means of an old gourd dipper, and as it leached through, it produced a potash lye. This then, when of the proper concentration, was used in making soap. Other implements of the soap makers art included the large iron kettle, hung over a fire from a bar suspended from two forked sticks at either end. In this kettle, the boiling and mixing took place. Sassafras stirring paddles with the bark knocked off were used for mixing purposes 'to give a sassafras perfume' to the soft soap. Close at hand were also a wooden water pail, a brown earthenware jug, and a lye pitcher, all ready to yield their respective contents to the boiling cauldron.

This interesting exhibit was loaned by the Green Oil Soap Co. of Chicago for the duration of the fair. Some of the implements were actually used by Mrs. James Adams, great grandmother of Dr. S. W. Becker of the University of Chicago clinics. A plant similar to the one pictured is reported in actual use at present in the heart of French Africa. It was established there by a methodist missionary who followed the directions of W. M. Kelso, president of the Green Oil Soap Co., who gave the description of the necessary implements and instructions in the art of using them. Olive oil and animal fats produced locally are the chief ingredients used by the native artisans, together with the home made lye.

The industrious colonial lass in the picture is Fay Georgia Case of Chicago, a direct descendant of Miles Standish. She is enacting the same scene as her great-great-grandmothers before her in the same manner as they did. Potash lye is made at the exhibit daily. A boy pours water through the gumwood hopper which was brought all the way from Louisiana for the purpose, and catches it in the glazed brown jar at the foot of it as it slowly drips through. Negotiations are under way to turn the exhibit over to the Rosenwald Industrial Museum in Chicago at the close of A Century of Progress.

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Dodge & Olcott Co., New York, has recently issued its September and October, 1934, price list on its complete line of essential oils, aromatics, etc.

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DETERGENTS
in Modern Laundry Practice

Part III

By C. A. TYLER, Ph.D.

NOT only laundry owners, but manufacturers of laundry supplies, are seeking to find the ideal soap builder. In order to evaluate the different types of builders in use, and as a basis for further discussion, the following is suggested as a list of desirable properties: 1. High alkalinity; 2. Large neutralizing value; 3. Alkalinity available at a high level; 4. High wetting power; 5. Good emulsifying and suspending properties; 6. Ready solubility in water; 7. Small effect on white or colors; 8. Non-injury to fabrics; 9. Free rinsing; 10. Low deliquescence.

The alkalinity of a builder is of first importance. The more alkaline it is, the more readily it will react with acid. The following table gives the alkalinity of various solutions, all at a concentration of 0.033 per cent. except soap, which is 0.1 per cent.

Material	*Nature*	*pH*
Caustic soda	NaOH	11.85
Sodium orthosilicate	$2Na_2O$, $1SiO_2$, $9H_2O$	11.3
Sodium metasilicate	$1Na_2O$, $1SiO_2$, $9H_2O$	11.2
A proprietary silicate	Silicate + soda ash	11.0
Trisodium phosphate	Na_3PO_4, $12H_2O$	10.8
A proprietary phosphate		10.8
A liquid hydrous silicate	Na_2O, SiO_2 (1:1.58)	10.7
Soda ash	Na_2CO_3	10.65
Soap	Sodium oleate	10.2
A liquid silicate	Na_2O, SiO_2 (1:3.86)	10.1
Modified soda	Na_2CO_3, $NaHCO_3$	10.0
Borax	$Na_2B_4O_7$, $10H_2O$	9.35

The above shows that, taking the same weight of these materials, caustic soda is most alkaline, and would be the best soap builder if its alkalinity were not so high as to have a harmful effect. However, it gives a basis for comparison. The silicates having a high ratio of Na_2O to SiO_2 give the most alkali of any of the builders. Increasing the silicious portion decreases its effectiveness. Silicate having a Na_2O to SiO_2 ratio of 1:3.86, modified soda, and borax are less alkaline than soap solution itself, or their reaction is acid with respect to soap solution. The more alkaline the material, the more readily it will react with acid. Thus soap solution would neutralize acid in the presence of borax, because the former is more alkaline.

The data available do not permit a point-by-point comparison of all the materials in the above list. As far as possible, comparisons will include representative types of builders,—silicates, phosphates, and carbonates.

By large neutralizing value is meant the ability to neutralize a reasonable amount of acid. Caustic soda will neutralize the most acid. True soap builders are buffer salts. Caustic soda is not a salt. With salts, pH does not increase in proportion to concentration. They tend to maintain their alkalinity by hydrolyzing to furnish more hydroxyl ion, as that originally present is used up. This alkali reserve can be demonstrated and measured by titration curves, and pH determinations before and after the break. Builders have been found effective in this respect in decreasing odor as follows: caustic soda, orthosilicate (Na_2O:SiO_2, 2:1), metasilicate (Na_2O:SiO_2, 1:1), soda ash, a proprietary silicate-carbonate mixture, alkaline trisodium phosphate, a proprietary borate trisodium phosphate mixture, and a trisodium phosphate-carbonate-silicate mixture. The less effective builders have been omitted. It will be observed that the order of the different builders is not always the same. For example, while soda ash does not give as much available alkalinity at any one time as does a stronger builder such as trisodium phosphate, it does give more total alkalinity. The pH determinations made before and after the break in actual operation in the laundry showed that considerable acid exists in the soil on clothes. It is important to neutralize this with builder rather than with soap. As indicated, some builders are more effective in this than others. The amounts of acidity neutralized in moles per liter in the first three washing operations, (before the bleach), are as follows.

		Moles per liter
1.	Break	0.0050
2.	Suds	0.0024
3.	Suds	0.0022

The last two values probably represent the amount of carbonic acid present, taken up from the air.

Alkalinity Available at High Level

THE third point that the alkalinity should be available at a high level means that the builder should neutralize acid without losing its high pH value. A builder is useful in the wash wheel so long as it maintains an alkalinity greater than that of soap solution. It should not decrease the alkalinity given by soap alone. If it does, the builder itself is acting to decompose soap and produce free fatty acid from it. If only a small proportion of the builder neutralizes acid above pH 10.2, then a large proportion is ineffective for the purpose, but still alkaline enough so that it must be rinsed out. This increases the amount of rinsing unnecessarily. Builders which neutralize acidity and maintain their alkalinity are, in decreasing order of efficiency, the

silicates, with the exception of the product having a 1:3.86 $Na_2O:SiO_2$ ratio, sodium carbonate, and trisodium phosphate. The high-silica silicate, modified soda, and borax are very quickly neutralized. A very small amount of acidity in the soil would render them valueless.

High Wetting Power

WETTING power is usually estimated by measurements of interfacial tension against some standard oily material. Soap solution lowers the interfacial tension of water against oil, and this effect is increased by the addition of builder to the soap. That is to say, soap solution will wet soil, but soap solution plus builder will wet in even better. The reason water rolls off a duck's back is because the feathers are oily and water fails to wet them. If such feathers had to be cleaned, one would use soap solution in order, first to get them wet. Soap solution plus builder would wet them even more quickly. The comparative wetting power of the different types of builders is given in the table below. The lowest values for interfacial tension correspond to the greatest wetting power. The measurements were made against benzene, and against a mixture of mineral oil and cottonseed oil to which a small amount of oleic acid was added. The oil mixture is undoubtedly much more representative of greasy soil as encountered in washing conditions than is benzene. In actual washing, both saponifiable matter and free fatty acid are present. This permits reaction between builder and free fatty acid to form soap in the interface. The amount of free fatty acid in the oil mixture was 0.16 per cent.

	—Dynes per cc. against—	
0.033% *Solution*	*Oil Mixture*	*Benzene*
Caustic soda	<1.0	29.89
Sodium orthosilicate	4.24	28.86
Soap (0.1% sodium oleate)	5.00	13.49
Soda ash	5.44	29.89
Sodiom metasilicate	6.71	29.89
Sodium silicate, 1:1.58	7.26	29.89
Modified soda	7.72	28.86
Trisodium phosphate	8.98	29.89
Sodium silicate, 1:3.86	11.58	29.89
Borax	13.30	29.89
Salt (sodium chloride)	17.96	29.89
Water alone	24.44	31.06

With 0.1 per cent soap plus 0.033 per cent solutions of builder, interfacial tensions were considerably lower.

	—Dynes per cc. against—	
Soap plus Builder	*Oil Mixture*	*Benzene*
Caustic soda	<1.0	4.71
Sodium orthosilicate	<1.0	8.01
Sodium metasilicate	1.96	9.51
Soda ash	2.18	9.72
Sodium silicate, 1:1.58	2.75	10.46
Trisodium phosphate	2.87	10.75
Salt (sodium chloride)	4.01	12.31
Modified soda	4.20	12.31
Sodium silicate, 1:3.86	5.84	13.51
Borax	7.81	17.81

In the first series soap solution and water alone are included for comparative purposes. The caustic soda solution represents the extreme of alkalinity, and the sodium chloride solution the opposite extreme,—the effect of a non-alkaline or neutral salt. The latter gives the common ion effect of sodium ion without any hydroxyl ion.

Interfacial tensions against benzene show that builders have substantially no effect by themselves when the oil is neutral. It therefore follows that the additional lowering of interfacial tension against benzene when builder is added to soap is due to some effect of the builder on the soap. This may reasonably be ascribed to repression of hydrolysis of the soap, which would cause the equilibrium to shift toward the colloidal or detergent state. The lower interfacial tension values for the builders alone against mixed oil takes into account the effect of the reaction of the alkaline builder with fatty acid to form soap in the interface. This effect is heightened by the addition of builder to soap solution, as shown by the even lower values against the oil mixture in the second series.

The effect of lowering interfacial tension, or increasing wetting power, in general is proportional to the alkalinity of the builders. It is interesting to note that the addition of sodium silicate (1:3.86) and borax to soap produces solutions having less wetting power than soap alone, as the latter values is 5.00. On the basis of pH values, the effects on interfacial tension of trisodium phosphate are less than would be expected, and those for soda ash and modified soda greater. This is accounted for in terms of molecular concentration, since that of the trisodium phosphate is low, and that of soda ash and modified soda high. As in the pH table, sodium orthosilicate is the highest of the salts and sodium metasilicate next best.

One would predict that interfacial tension will increase as builder is progressively neutralized, and will approximate that of sodium chloride when completely neutralized. The point is illustrated in the following table, which gives interfacial tensions in dynes per cm. against a mixed oil containing 0.27 per cent of free fatty acid.

	—Degree of Neutralization—				
Salt	0%	25%	50%	75%	100%
0.033% sodium metasilicate	3.20	7.06	8.36	10.69	17.31
0.033% sodium carbonate	2.32	5.09	6.27	8.46	16.32
0.033% sodium chloride	...	...	...	...	15.80
0.1% sodium oleate	5.23	...	...	...	...
0.033% sodium metasilicate and 0.1% sodium oleate	1.0	2.73	3.93	6.27	7.82
0.033% sodium carbonate and 0.1% sodium oleate	1.0	2.35	3.50	5.47	7.57
0.033% sodium chloride and 0.1% sodium oleate	...	...	...	...	3.32
Water alone	...	...	...	...	19.65

With builders alone there is a rise in interfacial tension, or a decrease in wetting power as the builder is progressively neutralized with acid. When completely neutralized, the values are intermediate between those for neutral sodium chloride solution and those for water. When builder is present with soap, the results are better than those for soap alone, until over 50 per cent neutralization has occurred. The interfacial tension then rises, since the pH of the partially neutralized builder is below 10.2, and therefore it lowers the efficiency of the soap, as seen with 75 and 100 per cent neutralization. Sodium oleate with sodium chloride is superior to sodium oleate with accidified alkaline buffers. These data further illustrates the function of the builder in protecting the soap from the acidity of the soil.

Good Emulsifying Power

THE fifth point in our 10-point study is the ability to emulsify and keep dirt in suspension. The detergent should disperse the dirt and prevent it from redepositing during the washing process, so that it is carried away at the end of the operation. A detergent which has wetting power but lacks deflocculating and emulsifying power will merely cause dirt to be spread over a surface more evenly, rather than cause it to be removed permanently. Builders possess emulsifying power in the following decreasing order, expressed in terms of milligrams of oiled umber held in suspension after 24 hours by 100 cc. of solution.

0.1% *Solutions*	*Mg. Umber*
Sodium oleate	48.6
Sodium metasilicate	32.2
Trisodium phosphate	25.3
Sodium hydroxide	18.9
Soda ash	12.2
Modified soda	12.2
0.1% *Soap plus Builder*	
Sodium metasilicate	77.0
Trisodium phosphate	73.4
Sodium hydroxide	66.4
Sodium carbonate	66.4
Modified soda	57.6

The values for deflocculating and emulsifying power are highest for the colloidal materials, soap and metasilicate. The latter has considerable emulsifying power of its own. Trisodium phosphate falls between the colloidal and non-colloidal materials, with good suspending power. Even modified soda improves the suspending power of soap solution. Unlike the other series, sodium hydroxide has a relatively low value. At least part of the effect of builder is due to its reaction with the fatty acid of the coating on the umber particles. Of course here the proportion of builder to oil is very large. Against this type of soil, the emulsifying effects of blended materials are roughly the sums of the effects of the individual materials used.

Solubility of builders now on the market hardly needs discussion. All of them are readily soluble, even in cold water. More important in this respect than chemical constitution is physical form. Small particles will dissolve more quickly than large particles. Therefore a builder should be supplied in a finely ground condition, not in lumps. A greater difference in solution time may exist between two supplies of the same builder than between two entirely unrelated products.

Non-Injury to Fabrics

SIMILARLY, the point of yellowing white goods, or fading colors is a minor one. Of themselves, builders have no more effect in this respect than soap solution, while in contact with fabric during normal washing operations. Some few dyes are removed by soap solution, and some by water alone.

Builders differ somewhat in their attack on fabric. Cotton fabric was washed 100 times with each of the following builders, and tensile strength measurements taken. The order for increasing loss of tensile strength was: soda ash, a proprietary silicate builder, a second proprietary silicate builder, modified soda, and caustic soda. As expected, caustic soda does the greatest injury. As ordinarily used, the effect of builders on loss of tensile strength is undoubtedly small. The major part of this loss is caused by the bleach and by mechanical wear. In using caustic soda, there is always a danger that a stronger solution than intended may at some time come in contact with the wash. A strong solution of caustic causes almost immediate damage to fabric.

Free Rinsing

BUILDERS should rinse out freely. Caustic soda tends to be adsorbed quite strongly by cotton, but in very small concentrations can be completely rinsed out. Tests to show ease of rinsing, in which cloth was soaked in 0.033 per cent builder solutions and then rinsed well, gave the following decreasing order of free rinsing: silicates and modified soda best, then borax, trisodium phosphate, and soda ash. Soda ash is the most difficult to rinse, partly because it is ordinarily used in high molecular concentration. If left on the material, it will turn white goods yellow.

Low Deliquescence

A PRACTICAL problem is created for the manufacturer of soap builders by the tendency of these materials to take up water and then stick together in lumps. A humidity of 75 per cent is probably representative of atmospheric conditions in power laundries, and even 100 per cent in some parts of the laundry. All builders will cake at 100 per cent humidity. It has been found that at a low humidity (25 per cent), trisodium phosphate loses moisture, while sodium metasilicate and soda ash take up a small amount of moisture. At 50 per cent humidity, trisodium phosphate still loses moisture, while sodium metasilicate absorbs about 20 per cent, and soda ash about 15 per cent of moisture. At 75 per cent humidity, trisodium phosphate takes up about 10 per cent, metasilicate 60 per cent, and soda ash 100 per cent or more of moisture. Laundry supplies should be protected as far as possible against conditions of high humidity. Anhydrous trisodium phosphate is sometimes mixed with other builders as a protection against moisture absorption. Sometimes the builder is spray-coated with soap or other non-hygroscopic material.

As might be expected, builders differ in efficiency according to the particular property being studied. A correlation of the above factors points toward the superiority of the silicate builders. Consideration of deliquescence indicates that there should be some means of protection against absorption of moisture. Reviewing our ten points, all things considered, there is no individual ideal soap builder.

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It is not possible to predict the value of a compound as an antioxidant for fats and oils from its chemical constitution. Naphthols, quinones and hydroxy-compounds are among the most effective. A. L. Caldwell and F. E. Bibbins. *J. Am. Pharm. Assoc.* **23**, 7-14 (1934).

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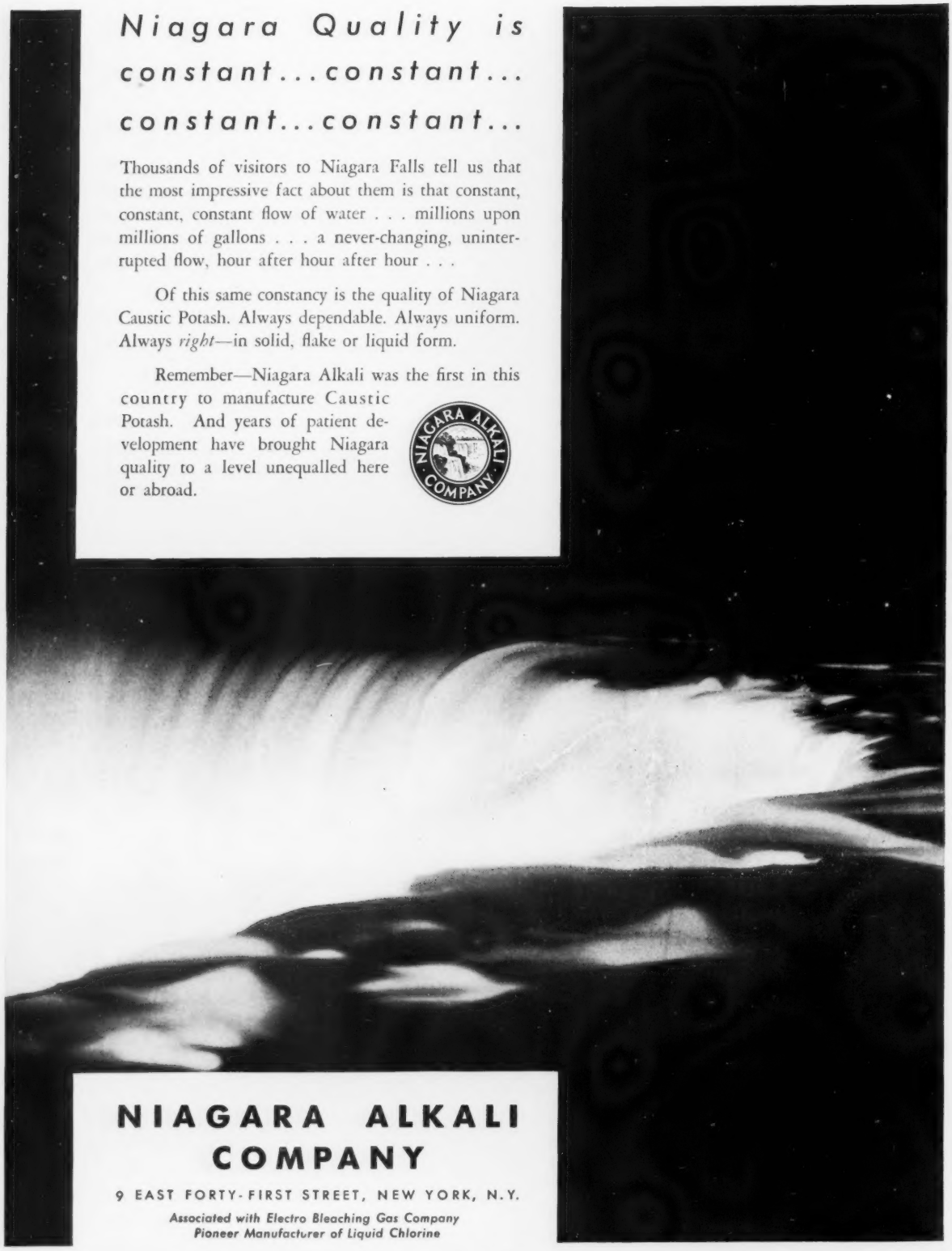

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Germicidal Detergents

The Synergistic Action of Soaps on the Germicidal Efficiency of Alkalies

PART II

By A. R. CADE, Ph.D. and H. O. HALVORSON*, Ph.D.

IT IS evident that all the ordinary soaps tested show very little germicidal action toward Staphylococcus aureus. This has also been found by others (17). Sodium resinate, however, appears to be an exception, in that it does show a germicidal effect in solutions above 1 per cent. However, since the sodium resinate used contained some excess alkali, we believe the killing power was due to the combined action of the soap and alkali.

We next studied the germicidal effect of these soaps combined with alkalies. The results are given in table V.

Table V.

The Germicidal Effect of Soaps Combined with Alkalies 5 min. at 37.5°C.

Soap	*Concentration*	*pH**	*Plate Count*
Sodium oleate	0.025%	10	4500
Sodium oleate	0.025	11	110
Sodium oleate	0.025	12	27
Sodium oleate	0.100	10	3600
Sodium oleate	0.100	11	90
Sodium oleate	0.100	12	6
Sodium oleate	0.250	10	100
Sodium oleate	0.250	11	70
Sodium oleate	0.250	12	1
Sodium oleate	0.500	10	0
Sodium oleate	0.500	11	45
Sodium oleate	0.500	12	3
Sodium ricinoleate ..	0.025	10	8000
Sodium ricinoleate ..	0.025	11	2200
Sodium ricinoleate ..	0.025	12	250
Sodium ricinoleate ..	0.100	10	4000
Sodium ricinoleate ..	0.100	11	2000
Sodium ricinoleate ..	0.100	12	200
Sodium ricinoleate ..	0.250	10	3000
Sodium ricinoleate ..	0.250	11	1800
Sodium ricinoleate ..	0.250	12	200
Sodium ricinoleate ..	0.500	10	3000
Sodium ricinoleate ..	0.500	11	900
Sodium ricinoleate ..	0.500	12	60
Sodium resinate	0.025	10	10,000
Sodium resinate	0.025	11	3,000
Sodium resinate	0.025	12	3,500
Sodium resinate	0.100	10	1,500
Sodium resinate	0.100	11	1,000
Sodium resinate	0.100	12	350
Sodium resinate	0.250	10	70
Sodium resinate	0.250	11	100
Sodium resinate	0.250	12	10
Sodium resinate	0,500	10	1
Sodium resinate	0.500	11	0
Sodium resinate	0.500	12	0
Sodium stearate	0.025	10	10,000+
Sodium stearate	0.025	11	10,000
Sodium stearate	0.025	12	4,000
Sodium stearate	0.100	10	10,000+
Sodium stearate	0.100	11	8,000
Sodium stearate	0.100	12	5,000
Sodium pelargonate ..	0.100	12	6,000
Sodium pelargonate ..	0.200	12	10,000+
Sodium pelargonate ..	0.500	12	10,000+
Sodium laurate	0.100	12	120
Sodium laurate	0.200	12	0
Sodium laurate	0.500	12	240
Sodium myristate	0.100	12	5,000
Sodium myristate	0.200	12	3,500
Sodium myristate	0.500	12	7,000
Sodium pentadecylate.	0.100	12	6,000
Sodium pentadecylate.	0.200	12	3,000
Sodium pentadecylate.	0.500	12	8,000
Sodium palmitate	0.100	12	7,000
Sodium palmitate	0.200	12	4,000
Sodium palmitate	0.500	12	10,000
Sodium margarate ...	0.100	12	6,000
Sodium margarate ...	0.200	12	10,000
Sodium margarate ...	0.500	12	9,000

*The pH of the solutions containing sodium oleate, sodium ricinoleate, sodium resinate, and sodium stearate was measured with a potentiometer after the soap had been added. For the other solutions, the pH of the alkali was determined colorimetrically before adding the soap.

It is apparent from the above results that some of the soaps, particularly sodium oleate and sodium resinate, exert a favorable synergistic action on the germicidal property of alkalies. A qualitative reduction in count occurs with some of the other soaps, but the phenomenon is too weak to be of any practical value. In studies that have been made on the combined effect of soaps and phenols, it has been found that there is an optimum concentration of soap, above or below which poorer results are obtained. We suspected that the same might be true of soaps and alkalies, and therefore the effect of concentration was studied in more detail, with results as given in table VI.

These data show that some soaps increase the germicidal efficiency of the alkali to a point where the test organism is killed in five minutes. As far as the existence of an optimum range of concentration is concerned, the data are not conclusive. If such an optimum does exist, the decrease in germicidal value for the higher concentrations is so slight that a very large

17. Hamilton, H. C. Ind. and Eng. Chem., 1911, 3: 582. Reiterhofer, H. Arch. f. Hyg., 1896, 27: 350. Schaffer, J. M., and Tilley, F. W. Jour. Agr. Res., 1930, 41: 737. Tilley, F. W., and Schaffer, J. M. Jour. Inf. Dis., 1925, 37: 358. Walker, J. E. Jour. Inf. Dis., 1924, 35: 557; 1925, 37: 181. Jour. Am. Med. Assn., 1931, 97: 19. Walters, A. L. Am. Jour. Pub. Health, 1917, 7: 1030.

* Department of Bacteriology and Immunology, University of Minnesota, Minneapolis.

series of experiments would have to be run before any definite conclusions could be drawn. At any rate, so far as the practical application is concerned, it is safe to conclude that no optimum range exists. There appears to be some difference, therefore, between the action of soaps with alkalies and their commonly observed action with phenols.

Table VI.

The Effect of Soap Concentration on the Synergistic Action
5 min. at 37.5°C.

Alkali	*Soap*	*Plate Count*
2% Na_3PO_4.....	0.0005% sodium oleate	8,000
2% Na_3PO_4.....	0.005	600
2% Na_3PO_4.....	0.01	400
2% Na_3PO_4.....	0.10	3
2% Na_3PO_4.....	0.25	1
2% Na_3PO_4.....	0.50	5
2% Na_3PO_4.....	2.50	26
2% Na_3PO_4.....	5.00	30
2% Na_3PO_4.....	0.0005% sodium resinate	9,000
2% Na_3PO_4.....	0.005	700
2% Na_3PO_4.....	0.010	350
2% Na_3PO_4.....	0.10	300
2% Na_3PO_4.....	0.25	10
2% Na_3PO_4.....	0.50	0
2% Na_3PO_4.....	2.50	0
2% Na_3PO_4.....	5.00	0
2% Na_3PO_4.....	0.0005% sodium stearate	10,000
2% Na_3PO_4.....	0.005	8,000
2% Na_3PO_4.....	0.025	2,500
2% Na_3PO_4.....	0.05	2,000
2% Na_3PO_4.....	0.10	5,000
2% Na_3PO_4.....	0.20	8,000
2% Na_3PO_4.....	0.0005 sodium laurate	10,000
2% Na_3PO_4.....	0.005	5,000
2% Na_3PO_4.....	0.05	650
2% Na_3PO_4.....	0.10	120
2% Na_3PO_4.....	0.20	0
2% Na_3PO_4.....	0.50	240
2% Na_3PO_4.....	0.0005 sodium tridecylate	8,000
2% Na_3PO_4.....	0.005	3,000
2% Na_3PO_4.....	0.05	500
2% Na_3PO_4.....	0.10	200
2% Na_3PO_4.....	0.20	4
2% Na_3PO_4.....	0.50	250

A FEW experiments were run to determine the effect of other salts on the syergistic action. The addition of salts furnishing common ions, in this case sodium ions, gives favorable results. Potassium salts have no effect, while ammonium salts have a decidedly detrimental action on germicidal properties. Ammonium salts of any kind definitely decrease the toxic action of alkalies. The results of these studies are given in table VII.

Using a solution containing 2 per cent trisodium phosphate and 0.2 per cent sodium oleate or sodium resinate, a series of tests was made with organisms other than *Staphylococcus aureus*. The tests showed the solution to be germicidal for *Escherichia coli, Eberthella typhi. Staphylococcus aurantiacus, Streptococcus lacticus*, and several species of hemolytic streptococci and pathogenic pneumococci.

We also made tests with Mycobacterium tuberculosis (hominis), using a strain which had been cultivated on artificial medium for several years. With this organism it was necessary to modify the technic slightly. In the first place, the organisms were grown on glycerine agar slants, from which they were washed off with a salt solution. The resulting suspension was then diluted with physiological saline until its density appeared about equal to that of a 24 hour culture of *Staphylococcus aureus*. Of this suspension, 0.5 cc. was added to 5 cc. of the germicidal solution which had been brought to a temperature of 37.5°. After the 5 minute contact period, standard loopfuls were removed and plated on glycerine agar instead of the nutrient agar used in the other tests. The plates were incubated for one week. The results are given in table VIII.

Table VII.

The Effects of Other Salts upon the Synergistic Action
5 min. at 37.5°C.

Alkali	*Soap* sodium oleate	*Salt*	*Plate Count*
2% $Na_3PO_4.10H_2O$...	0.005%	..	2000
2% $Na_3PO_4.10H_2O$...	0.005%	0.1% NaCl	800
2% $Na_3PO_4.10H_2O$...	0.005%	1.0	200
2% $Na_3PO_4.10H_2O$...	0.005%	0.1% NH_4Cl	8000
2% $Na_3PO_4.10H_2O$...	0.005%	1.0	4000
2% $Na_3PO_4.10H_2O$...	0.050%	..	350
2% $Na_3PO_4.10H_2O$...	0.050%	0.1% NaCl	100
2% $Na_3PO_4.10H_2O$...	0.050%	0.2	5
2% $Na_3PO_4.10H_2O$...	0.050%	1.0	0
2% $Na_3PO_4.10H_2O$...	0.050%	0.1% NH_4Cl	1200
2% $Na_3PO_4.10H_2O$...	0.050%	0.2	3000
2% $Na_3PO_4.10H_2O$...	0.050%	1.0	4000
2% $Na_3PO_4.10H_2O$...	0.100%	..	250
2% $Na_3PO_4.10H_2O$...	0.100%	2.0 NaCl	40
2% $Na_3PO_4.10H_2O$...	0.100%	2.0% NH_4Cl	5000
2% $Na_3PO_4.10H_2O$...	0.100%	2.0% KCl	2000
2% $Na_3PO_4.10H_2O$...	0.100%	2.0% $(NH_4)_2SO_4$	2000
2% $Na_3PO_4.10H_2O$...	0.100%	2.0% Na_2SO_4	50

Table VIII.

The Synergistic Action of Soaps and Alkalies on Mycobacterium tuberculosis.
5 min. at 37.5°C.

Soap and Alkali Mixture	*Plate Counts*
2% $Na_3PO_4.10\ H_2O$.. alone	4000
2% $Na_3PO_4.10\ H_2O$.. + 0.1% sodium oleate	30
2% $Na_3PO_4.10\ H_2O$.. + 0.2% sodium resinate	0
2% $Na_3PO_4.10\ H_2O$.. + 0.1% sodium oleate and 1.0% sodium chloride	0
0.1% sodium oleate alone	4000
0.2% sodium resinate alone	6000
Control loopful of saline suspension of culture	10,000+

It would appear from this table that trisodium phosphate, containing from 0.1 to 0.2 per cent sodium oleate or sodium resinate is germicidal for Mycobacterium tuberculosis at 37.5°C. However, we do not believe that these data are conclusive. The zero counts may simply mean that the tubercle bacilli have been retarded in their growth. Nevertheless, the solutions used are distinctly detrimental to this organism.

Before one can definitely state that the solutions kill the Mycobacteria, it would be necessary to test a large number of strains of known pathogenicity, and to inoculate the treated cultures into laboratory animals as well

(*Turn to Page* 49)

Air View of the New Southern Alkali Plant at Corpus Christi, Texas

Alkali in the Southwest

Southern Alkali Starts Production at Corpus Christi

THE first production of alkali in the southwestern section of the United States has just been started. The plant is also the first American alkali venture to be located on tidewater. For the past year, the plant of the Southern Alkali Corporation has been in the process of building at Corpus Christi, Texas, on the Gulf of Mexico and not far from the Mexican border. Today, its first production of commercial alkali is ready for the market. The plant cost something over six million dollars to build. The owning and operating company, the Southern Alkali Corporation, is in turn a jointly owned subsidiary of the Pittsburgh Plate Glass Company and the American Cyanamid Company. The Pittsburgh Plate Glass Company is also the owner of the Columbia Alkali Company whose plant is located at Barberton, Ohio.

The new alkali plant is using the ammonia-soda process. For fuel, natural gas piped from the company's own wells about six miles away, is being used. It is stated that the fuel cost is equivalent to coal at about one dollar per ton. The plant source of salt is located in Duval County, about sixty miles away in company-owned wells, the flow to Corpus Christi, however, being altogether by gravity. This brine is piped to an open reservoir at the plant with a capacity of 3,000,000 gallons. Oyster shell lime is abundant close by the plant. Coke and limestone are shipped in by rail.

Because of its deep-water location, the plant aims to serve both coasts of the United States, as well as Central and South American points direct by steamer at considerable economy. Dock facilities are available directly at the plant for ocean going steamers. Because of its nearness to petroleum producing and refining centers, this industry will probably represent the largest immediate customer. Others will probably be soap, cotton oil, paper and glass production centers located on the United States and South American seaboards. The company is producing a full line of alkalies, including caustic soda in liquid, solid, flake and powder form, dense and light soda ash, and various modified sodas. The main office of the firm is at Corpus Christi, but other offices are located in Dallas, Texas, and in the Empire State Building, New York.

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The code authority of the furniture and floor wax and polish industry has applied for modifications of its code dealing with definitions of terms and with fair trade practices. A sub-section provides for a wall paper cleaner subordinate code and an increase of three members of the code authority to be selected by that division. A new article provides that nothing in the code relating to prices or terms of selling, shipping or marketing, shall apply to export trade or sales or shipments for export.

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Manufacturers of fabric cleaners have been placed under the shoe polish division of the code for the shoe and leather finish, polish and cement manufacturing industry at the request of a group representing approximately 75% of the fabric cleaner manufacturers.

New Products

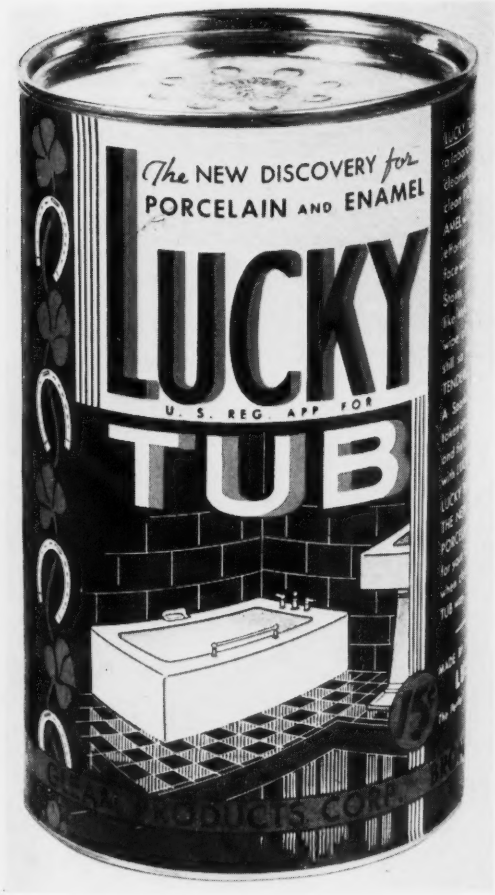
Toilet soap of Japanese manufacture makes its debut in the American market on the Eastern Seaboard. The soap is reported sold to jobbers at one dollar per dozen boxes of twelve bars each.

Keyspray, liquid insecticide spray designed especially for use against moths on upholstered furniture, makes its appearance in a new container by Giles Can Company of Chicago. Keyspray is made by Keystone Chemical Company of Cleveland.

Conti Liquid Shaving Soap makes its bow to the market in a unique glass container with plastic cap. Carries the name of the well-known Conti Castile Soap from which it is made. Packaged in bottles to retail at 35c and a 10c trial size.

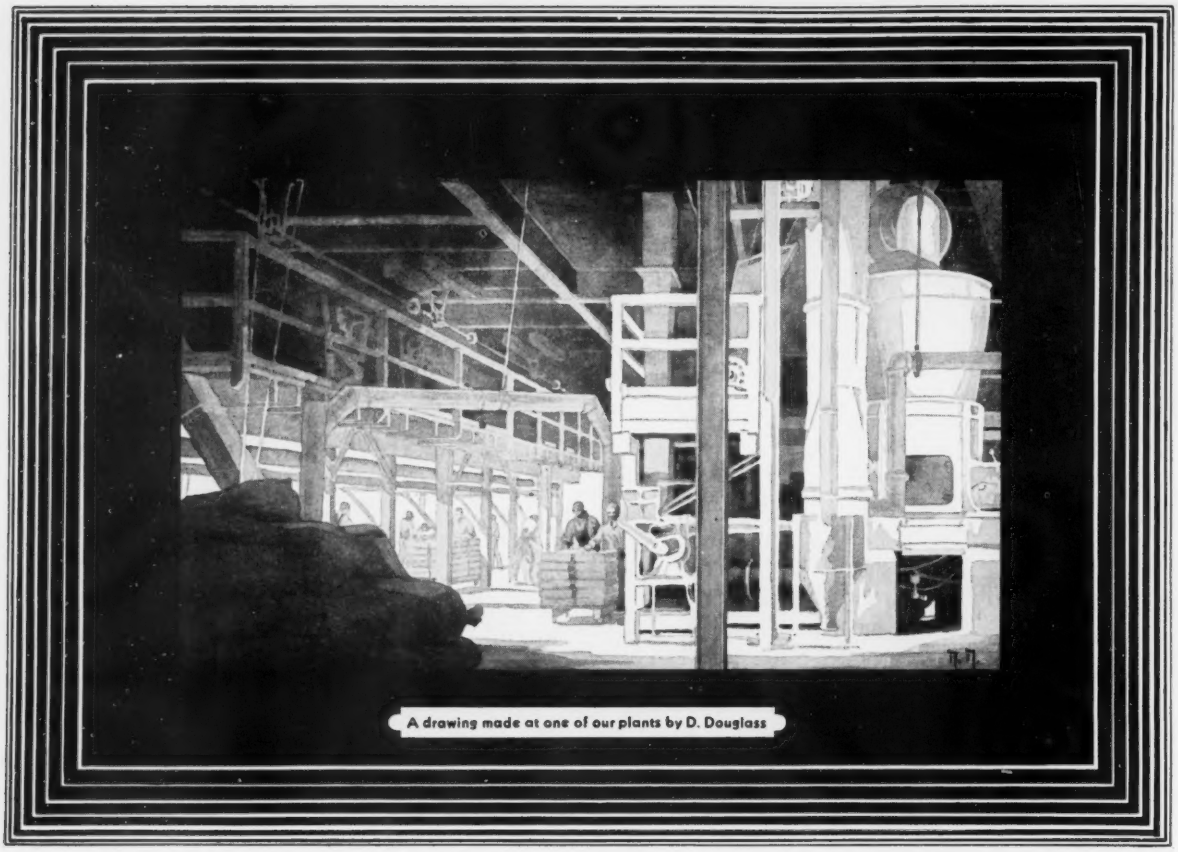
and Packages

A new counter display basket for the well-known Palmolive Soap. Designed and lithographed for Colgate-Palmolive-Peet by the Niagara Lithograph Co.



A new porcelain and enamel cleaner,—Lucky Tub manufactured by Gleam Products Corporation, New York. Fibre can with paper label in green, black and white. A companion product to Lustro.

Whiz Hand Soap of the Davies-Young Soap Company of Dayton is now packaged in a one-pound can of new design and bright orange in color. Whiz is one of the oldest brands of hand soap on the market.



A drawing made at one of our plants by D. Douglass

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KALAMAZOO DISTRICT
Office: 2006 Race St., Kalamazoo, Mich.

Excise Tax Regulations Issued

Soap Must Have Been Framed Prior to May 10 to Escape Tax—Partly Processed Oils Taxable —Tax to Be Figured on Oil Actually Used, Not on Oil in Finished Product—Tax-Paid and Non-Paid Oils Must Be Stored Separately—Foots Held Taxable—Comments of John B. Gordon.

REGULATIONS covering the payment of the three-cent per pound excise tax on coconut, palm, palm kernel, sesame, and sunflower oils, have been issued by the Bureau of Internal Revenue and are now available at the various offices of Collectors of Internal Revenue throughout the country. Soap manufacturers who filed tax returns on July 31 covering the months of May and June, must now check the returns in the light of the regulations as issued, and if they find that they have omitted any oils in their original reports, must file a supplementary return for those periods.

The regulations appear to be more drastic than anticipated. Soaps to escape the tax must have been completely saponified and out of the kettle prior to 11:40 A.M. on May 10. Reworking a cold-made soap which contains glycerin and was made from taxable oils is subject to the tax. The fact that the oils were refined in any way, or bleached, or hardened, or otherwise processed, does not make them tax-exempt when used for soap manufacture even though the law specifies "first processing." The tax on the oils consumed is to be calculated from the oil actually pumped into the kettle and not from the oil contained in the finished soaps. On this basis, all oil losses in process from any cause whatever are taxable. There is no tax on fatty acids of the taxable oils which are imported as such. However, the tax must be paid by those who process these oils in this country for the production of fatty acids. Foots of taxable oils are also taxable inasmuch as they contain an appreciable portion of oil in addition to fatty acids and must thus be classed as a mixture of a taxable oil.

It has been suggested to all soap makers by R. C. Edlund, manager of the Association of American Soap and Glycerine Producers that when monthly returns are made on Treasury Form No. 932 along with monthly payments that such returns be accompanied by a written protest against that portion of the tax which it is felt is not legally collectible based on the law and not the regulations. It is also suggested that soapers secure from local Collectors of Internal Revenue copies of Claim Form No. 843, which may be filed along with the regular tax return or later if desired.

The opinion in the soap industry seems to be that the regulations go far beyond the meaning or intent of the law as passed. The fact that first complete use is the interpretation which the Revenue Bureau places on "first processing" for soap makers, irrespective of any prior processing which may have been done before May 10, will probably be fought by the large soap companies. Several firms are reported not paying their tax on the basis of "first processing" as interpreted in the regulations but according to their interpretation of the law and the actual meaning of first processing.

An explanation of the working of the excise tax based on such decisions as have been made and through personal contact with representatives of the Bureau of Internal Revenue, is contained in considerable detail in reports by John B. Gordon of the Bureau of Raw Materials for the American Vegetable Oils and Fats Industries. He states in part on various phases of the law:

"Unquestionably, the final interpretation of the law must be left to the courts. The regulations will be contested in the courts and it will be insisted in the courts that the intent of Section 602½ of the 1934 Revenue Act, which embodies the excise taxes on oils, has been expanded far beyond the scope which was intended to be covered by Congress. The courts will be asked to pass upon the action of the Bureau of Internal Revenue in having made the tax attach to oils processed after May 10, 1934, to products which were in process of manufacture on that date; to the ruling which prevents the reworking of soap scraps, etc., which contain glycerine; to the ruling which holds soap stock, acidulated coconut oil, etc., as taxable. In fact, every portion of the regulations which oversteps the intent of Congress in writing the tax on the five imported vegetable oils will be contested in the courts and carried to the United States Supreme Court, if necessary.

The fact that the regulations will be contested in the courts does not, however, prevent us from attempting to secure clarifying rulings from the Bureau of Internal Revenue which may abate in some degree the undue harshness of the regulations as written. We are positive that Congress never intended, when it levied the excise tax on vegetable oils, that a floor stock tax should be levied upon oils processed prior to May 10 or intermediate products produced from these oils. In some instances where the evidence is emphatically in favor of our side of the controversy we have hopes that the Bureau of Internal Revenue will recognize this fact and by clarifying rulings abate the severity of the regulations which they have promulgated.

Coconut Soap Stock Taxable

THE two portions of Regulations 48 which have received the most adverse comment from the small soap manufacturer are those portions which prevent the reworking of soap scraps containing glycerine and the reworking of soap from which the glycerine was not removed prior to May 10 and the portion of the regulations which obligates the taxing of acidulated coconut oil and foots secured from the refining of the several taxable oils. We have already presented a memorandum to the Bureau of Internal Revenue pointing out that the ruling preventing the reworking of soap from which the glycerine had not been removed prior to May 10 works a great hardship upon small soap manufacturers who do not have the facilities for removing the glycerine and yet must be allowed to rework soap if they are to economically manage their business. We have asked that this very drastic

ruling be modified in the interests of the smaller soap manufacturers. We are convinced, however, that it is useless to contest the ruling which holds vegetable oil foots and acidulated coconut oil as taxable, the position of the Bureau of Internal Revenue having been sufficiently clarified to convince us of that fact.

We are in receipt of a letter from the Bureau of Internal Revenue which adds a paragraph to the letter which we received previously stating that fatty acids are exempted from the excise tax of 3 cents per pound. This addition to the letter received from the Commissioner of Internal Revenue in reality serves to identify coconut oil soap stock and acidualted coconut oil as a taxable commodity. The paragraph does not apply to the ordinary grade of fatty acids, as none of them would contain as much as 10% of the essential components of coconut oil in its natural state. Obviously, if they do contain in excess of 10% of the original components of the oil in its natural state and in combination with the original fat molecule, the fatty acids would be taxable. The additional paragraph which we are requested by the Bureau of Internal Revenue to add to their letter reads as follows:

> 'However, coconut oil fatty acid which contains a substantial portion (10 per cent or more) of substantially all of the essential components of the coconut oil is considered a combination or mixture containing a substantial quantity of coconut oil and the use of such coconut oil fatty acids in the United States after the effective date of section 602½ in the manufacture of an article intended for sale, is subject to tax.'

It will be observed that fatty acids made by the Twitchell process still remain tax exempt under the above ruling, keeping in mind that the making of fatty acids from crude oil is, of course, taxable. The ordinary run of fatty acids will run from 95% to 98% fatty acids. Such fatty acids, therefore, are clearly tax exempt if made prior to May 10 or if imported into the United States from abroad.

Tax on Oil Put Into Process

ARTICLE 4 of the regulations 'When tax attaches,' states that the tax attaches when the oil is first put into process. In other words, if you refine an oil in August with the expectation of using it for further manufacture in September, the tax must be reported in the return submitted for the month of August. If you wish to avoid paying the tax in this manner, you must refrain from processing the oil until you are ready to use it for further manufacture.

Article 5 of the regulations entitled, 'Measure of the tax' states that the amount of the tax is to be figured on the amount of oil put into process. This means that the tax must be paid on the crude oil actually put into process and not the resultant product obtained therefrom. A refiner, therefore, would pay the tax on the number of pounds of oil which he put into his refining kettles and not the number of pounds of refined oil which he took out of same. In the case of soap in the process of manufacture on May 10, the amount of the tax will be the amount of taxable oils which are put into the kettle. You will not pay the tax on the total weight of soap, you will pay the tax only on the number of pounds of the taxable oils which you put into the soap kettle.

The last part of article 5 is designed to prevent the mixing of tax-paid and non-tax paid oils in storage tanks. It is not the intention of this section to prevent you from mixing tax paid and non-tax paid oils when they go into the manufacture of your product. This portion of article 5 is punitive and it is designed, the attorneys of the Bureau of Internal Revenue states, to prevent evasion of the tax by mixing tax-paid with non-tax paid oils in storage tanks. Tax paid and non-tax paid oils must, therefore, be stored separately.

Article 13 is the portion of the regulations which covers exports. It will be found much easier to conduct an export business under the bonding provisions incorporated in Article 13 than it will be to attempt to obtain refunds on exported goods unless the export goods are made entirely or in chief part of taxable oils. It will be simpler, therefore, to take out a bond and process the oils for export under bond. You may manufacture them into soap, paint, lineoleum or anything you like under this bond, and if you find subsequently that you cannot sell the goods in the export market, you may sell them in the domestic market and pay the excise tax.

Notify Public of Tax Cost

WE DO not believe that it is fair to allow the public to ascribe the increased price of products made from coconut, palm, palm kernel, sunflower and sesame oils to natural conditions. We think that a spade should be called a spade and the public made familiar with the cause of the increased prices of products made from these oils. At the immediate moment the price of soap is perhaps more directly affected than that of other products, as sunflower oil is the only drying oil in the collection and its use by paint and linoleum manufacturers has been tremendously curtailed by the excise tax. It devolves upon the soap manufacturers, therefore, to explain to the public that the increased price of their soap is due to factors beyond their control and directly chargeable to the excise tax upon coconut and other soap making oils. The suggestion has been made by Mr. William Newton of Haskins Brothers Soap Company of Omaha, Nebraska, and Dr. Martin Ittner, chemist for one of the large soap companies, that a sticker be placed on each cake of soap or each soap wrapper contining same, which sticker will advise the public as to the direct source of the increased price of soap.

Might we suggest, therefore, that this excellent suggestion be adopted and that each cake of soap which soap makers put out of their factory in the future bear a sticker reading somewhat as follows:

> 'The price of this cake of soap is increased ——% by the 3 cents per pound excise tax levied on Philippine coconut oil in the 1934 Revenue Act. The exemption of Philippine coconut oil from this excise tax in accordance with the terms of the Philippine Independence Act would be a material factor in decreasing the price of soap.'

Later on we shall request laundryowners to place a slip in each laundry bundle advising their customers of the unnecessary increase in the price of the laundry bundle as a result of the tax upon imported soap making oils.

We believe such measures are necessary to properly inform the public as to the effect of the excise taxes upon imported soap making oils. We do not believe that it is proper to leave the public in ignorance. We must consider the fact that the coming winter is going to be one of great scarcity of oils and fats as well as of foodstuffs. Newspaper accounts already record public indignation at pork chops priced at 40 cents per pound. The public will be in a very inquisitive frame of mind. It will want to know what occasions the tremendous increases in the price of foods and products made from oils and fats. It should not be left under the misapprehension that the tremendous increase in the price of products made from oils and fats is due to natural causes.

For the benefit of the purchasers of soap in quantity, a sticker should be placed on each box. This sticker should state that the price of the soap has been increased so much per box as a result of the excise tax upon Philippine coconut oil and other imported oils and fats. Simliar stickers should be placed upon barrels of soap and other containers of soap in bulk, stating the percentage of increase per barrel or per pound as a result of the excise tax. It is important that the distributors of soap and the bulk users of same be kept fully advised as to the

price raising influence of the tax upon imported vegetable oils in order that they may advise their consumers properly when demand is made of them for an explanation of the materially increased price of soap. If this is not done, the soap maker will be blamed for something for which he is not responsible, namely, the increased price of soap. He will be accused of being a profiteer and profiteering is not going to be at all popular this winter."

Origin of Coconut Oil Must Show

Regulations 48 relating to the processing tax on coconut oil and other oils taxed under Section 602½ of the Revenue Act of 1934 point out in Chapter II, Art. 6, that the rate of tax is 3c per pound on coconut oil and on any combination or mixture containing a substantial quantity of coconut oil, if all such coconut oil (alone or in combiation or mixture)—(1) Is wholly the production of any possession of the United States, including the Philippine Islands; or (2) Was produced wholly from materials, the growth or production of any possession of the United States, including the Philippine Islands; or (3) *Was brought into the United States before June* 10, 1934; or (4) *Was produced from materials brought into the United States before June* 10, 1934; or (5) *Was purchased under a bona fide contract entered into prior to April* 26, 1934; or (6) *Was produced from materials purchased under a bona fide contract entered into prior to April* 26, 1934.

Except as set forth above the rate of tax on coconut oil is 5c per pound on such coconut oil or any combination or mixture containing a substantial quantity of coconut oil. In view of the foregoing portions of the tax law as embodied in Section 602½ of the 1934 Revenue Act, it becomes absolutely necessary that all users of coconut oil properly identify the source of the coconut oil which they have processed in submitting their tax returns. If you have used coconut oil of other than Philippine origin, i.e., coconut oil which was produced by domestic crushers of copra imported from the South Seas, etc., it is necessary that you identify this coconut oil on your tax returns and if you have not properly done so, you should submit a supplementary tax return for the month covering the period in which you used the coconut oil.

You can ascertain the source of the coconut oil which you have processed in case you purchased it from a domestic crusher by asking the crusher from whom you bought the oil, as these domestic crushers carefully segregated the coconut oil produced from copra of Philippine origin from that produced from copra of non-Philippine origin. Since it is a foregone conclusion that every pound of coconut oil of non-Philippine origin which you have processed was brought into the United States before June 10, or was produced under a contract entered into prior to April 26, 1934, or was produced from materials purchased under a bona fide contract entered into prior to April 26, 1934, there is no danger that you will have to pay an additional tax upon this oil of non-Philippine origin. It will not matter to you, therefore, where the oil or copra originated, but it is of great importance to the United States Government. The reason for this is that the Government of the United States places the entire 3c per pound tax secured from coconut oil of non-Philippine origin in the United States Treasury, whereas, the 3c per pound collected on coconut oil of Philippine origin must be refunded to the Philippine Islands. Since there were many million pounds of this coconut oil of non-Philippine origin in the United States at the time the tax became effective, the amount of revenue to the Unted States Treasury involved is very large.

In order to make sure that it is getting all the money which is due it, it will be the purpose of the Bureau of Internal Revenue to trace all importations of coconut oil which entered the United States since January 1, 1934. They will inquire of the original importers of the copra and the coconut oil as to the disposition of the oil entering as such and of the oil made from imported copra. If any user of coconut oil is found to have submitted a tax return without properly identfying coconut oil of non-Philippine origin as a result of this check of imports which will be made, he is apt to get into serious difficulties with the Government which will be deprived of the 3c per pound revenue as the result of his action. If you have purchased coconut oil from Philippine crushers, there is no doubt that the oil is of Philippine origin, so no further thought need be given the matter. Not only will imports of coconut oil be checked, but imports of sunflower oil and the other taxable oils will be checked. Only in the case of coconut oil, however, does this question of proper identification of the origin of the oil arise. This is because the Philippines to whom the tax on their oil reverts produce coconut oil solely. The check which will be made on the disposition of the imports of these other taxable oils will serve the Bureau of Internal Revenue as a means of finding out if the taxes have been paid on them. If not paid, the first domestic processors will be assessed a penalty of 25% of the amount of the tax plus 1% interest per month from the time the tax was due under Article 21 of Regulations 48.

Textile Processors Must Pay Tax

The Commissioner of Internal Revenue has ruled that "the mixing of palm kernel oil, palm oil, etc., with alkalis to form an emulsion used by the textile industry constitutes processing of the oil within the meaning of section 602½ of the Revenue Act of 1934. The processor is liable for the tax imposed by that section upon such processing." We quote the exact language of the Bureau of Internal Revenue in the wording of its ruling. We do not know what they mean by an emulsion of alkali with palm kernel oil, but it is obvious that whether the so-called emulsion which they speak of is soap or not, it is the intention of the Bureau of Internal Revenue to tax any mixture whether it constitutes soap or not when it is made by the textile manufacturer.

CUBAN SOAP DUTIES LOWERED

The Cuban-American Trade Agreement, signed August 14th and in effect since September 3rd, establishes new and lower duties on imports of soap into Cuba. Under the old tariff rates the preference given to various types of American soaps ranged from 30 to 40%, whereas under the new rates the preference ranges from 35 to 50%. The following table gives the new and old United States rates of import duty to Cuba in United States dollars. New duties marked with an asterisk are those rates which it is agreed not to increase during the life of the agreement. Where there is no mention made of a specific item, it is assumed that no increase in rate will be made during the term of this agreement. However, in the case of medicinal soap there is a possibility of a rate change.

Merchandise CHEMICALS AND TOILETRIES (per 100 kilos)	Rate to U. S. in Cuban pesos	
	New	Old
Ordinary soap, in blocks, cakes, flakes, shavings or powder, including Castile, Marseilles and bluing soaps	3.90*	4.20
Ordinary soaps, in bars, perfumed for bath or toilet	6.00*	7.00
Soaps, in powder and liquid, perfumed and in cakes, unwrapped, perfumed or not	18.00* plus 6% ad valorem	21.00 plus 7% ad valorem
Toilet soaps, wrapped, and fine toilet soaps, even though not wrapped	27.50* plus 11% ad valorem	30.00 plus 12% ad valorem
Toilet waters, lotions, oils, pomades, cosmetics, tonics, liquid dentifrices and other toilet preparations whose value is less than $1.25 per kilogram	50.00* plus 10% ad valorem	60.00 plus 12% ad valorem

Facts About Glycerin

GLYCERIN values today are at an all-time low and it is reasonable to expect a steady maintenance of values with a continued broad movement into all consuming channels in a direct ratio to general business activity, according to an analysis of the present glycerin situation which has been made at the request of *Soap* by the Association of American Soap and Glycerine Producers. Imports of crude glycerin into the United States for the first seven months of 1934, as shown by Department of Commerce figures, totaled 9,047,982 pounds. Unofficial estimates for August bring the total for eight months well over ten million pounds and the prospective total for 1934 to approximately fifteen million pounds. In addition to these crude imports 1,311,097 pounds refined glycerin came in, from January to July inclusive.

Imports of glycerin (Department of Commerce figures) for the preceding five full years were as follows:

	Crude	*Refined*
1933	6,204,636 pounds	2,777,918 pounds
1932	5,184,411 pounds	2,333,606 pounds
1931	9,951,473 pounds	1,975,970 pounds
1930	10,906,426 pounds	3,177,479 pounds
1929	14,601,736 pounds	5,493,471 pounds

Imports to date this year and known and prospective commitments over the balance of the year will probably bring the total for 1934 to double that of 1933.

Production of crude glycerin in the United States for the first six months of 1934 (Department of Commerce figures) totaled 79,185,631 pounds. Comparative production figures for similar periods of the preceding five years were as follows:

1933	50,875,656 pounds
1932	71,027,324 pounds
1931	71,517,772 pounds
1930	71,813,392 pounds
1929	69,822,055 pounds

Discarding 1933 figures as abnormal, the domestic production for the first six months of 1934, was 11 percent in excess of the average for similar periods in the four years prior to 1933. Low production, due to low world prices, and difficulty of importing glycerin on account of adverse exchange with gold countries who are the principal exporters to the United States, caused stocks of glycerin in the United States on January 1 of this year to be dangerously low. Consumption for the past twelve months has been excellent and evidently sufficient to absorb most of the United States production for the same period. Imports, which have been stimulated by an advancing market have alone been responsible for the accumulation of the more comfortable stocks now being carried by both buyers and sellers.

It is probable that neither production nor consumption in the last six months of the calendar year will equal that of the first six months. It is the consensus of opinion that in the absence of any unforeseen heavy demand, stocks in producers hands will remain fairly steady through the next ten weeks with some further increase in the latter part of the year. The increasing diversification of uses for glycerin is tending to stabilize its market value and to make it a rather good barometer of general business conditions.

The European Situation

COMMENTS have been frequent as to possible foreign accumulations of glycerin for war purposes. Most of these opinions are basically incorrect but in practice should not be entirely ignored. The consumption of glycerin in munitions is of minor importance, but the requirements in mining and for other general industrial activities that accompany extensive hostilities are quite apt to exceed current production.

Stocks of glycerin in Europe at the beginning of this year, while not excessive, were ample for ordinary requirements. Since then increase in gold mining activity the world over, increased exports to the United States, and possible speculative accumulations have helped to absorb foreign current production so that their stocks while still comfortable are not burdensome. Present prices are stimulating recovery, and imports will continue to come to the United States through the balance of the year, although perhaps in lesser volume than that of the first six months.

Glycerin recovery outside the United States undoubtedly suffered more curtailment during the 1932-33 low prices than it did here. Our import tariff keeps the world market one to two cents per pound under the United States market and at the low values of last summer, in addition to adverse foreign exchange, there was little incentive for the small foreign soap manufacturer to save his lyes.

American Research

THE United States with the largest per capita consumption of soap in the world is also the largest per capita producer and consumer of glycerin and has by far the greatest diversification of use. Through the Association of American Soap and Glycerine Producers, large producers in this country have for eight years been responsible for a research program to extend the use of glycerin. In at least one instance, the demand has exceeded the ability to supply and at the same time protect older consuming channels against excessive prices. Today's values, while sound, are stimulating

(*Turn to Page* 57)

Two More Lifebuoy Imitation Suits

Lever Brothers Co. Sues National Milling & Chemical—File Complaint Against Iowa Soap With Trade Commission—Final Decree for Lever in Jay's Chemical Suit—Action Against Eavenson Pending.

FURTHER legal action for alleged imitation of Lifebuoy Soap has been instituted by Lever Brothers Co. against the National Milling & Chemical Co. of Philadelphia in the United States District Court for the Eastern District of Pennsylvania. The action is also against the officers of the Philadelphia company, Harry C. Rosenberger, Lester M. Rosenberger, and Morris R. Williams. The complaint charges unfair competition, specifying Namico Health Soap which is red in color, octagonal in shape and carbolic in odor. The case will probably come to trial early in 1935.

Another development in the series of actions against alleged imitators of Lifebuoy was a complaint filed Aug. 10 with the Federal Trade Commission by Lever Brothers Co. against the Iowa Soap Co. for unfair competition. The product named in this latter case is the Protex Soap of the Iowa company. The complaint against Iowa Soap alleges unfair competition, but it is not claimed, however, that Protex violates the Lifebuoy trade mark, as in an earlier case against Lifeguard Soap of the Jay's Chemical Corp. of Brooklyn.

By a decree of Judge Robert A. Inch the U. S. Court for the Eastern District of New York, the temporary injunction granted to Lever Brothers Co. against the Jay's Chemical Corp. in its original imitation suit on Lifebuoy Soap has been made permanent. The Jay's company did not contest the final action of the court. There is also pending a court action by Lever Brothers against J. Eavenson & Sons, Inc., Camden, N. J. which case likewise involves alleged imitation of Lifebuoy Soap.

In the decree in the Lever-Jay's case, the findings of Judge Inch were given in part as follows:

Plaintiff and its predecessors, since about 1888, have been engaged in the business of manufacturing and selling a toilet and bath soap red in color and having a cresylic or carbolic odor, under the trade-mark "Lfebuoy."

That said combination of red color and cresylic or carbolic odor of plaintiff's said soap was, when first used, radically different from the combination of color and odor embodied in all other toilet and bath soaps made by other manufacturers; and by reason of plaintiff's continuous, notorious and exclusive use of the distinctive combination of the color red with the cresylic or carbolic odor, said combination has, in fact, acquired and now possesses a secondary meaning denoting said soap of plaintiff and of no other person, and has become and now is a means by which plaintiff's said soap is recognized and purchased.

That at the time plaintiff first placed said product upon the market no toilet or bath soap, red in color and carbolic in odor, was being sold in the United States and said color and odor never before had been used as a means of identifying and distinguishing the manufacturer.

That since 1903 plaintiff has used the words, "Health Soap," on its said product as a means of distinguishing the same, and by reason of the facts aforesaid and plaintiff's continuous, notorious and exclusive use of the term, "Health Soap," in connection with its said product, said designation, "Health Soap," long prior to the acts of defendant hereinafter referred to, had acquired and now possesses a secondary meaning denoting said soap of plaintiff and of no other person, and had become and now is a means by which plaintiff's said soap is recognized and purchased.

That prior to plaintiff's adoption and exclusive use thereof, neither the words, "Health Soap," nor any similar combination of words denoting the same meaning, had ever been employed by any manufacturer or dealer in connection with any soap.

That in order to provide an additional means of identification, plaintiff in about 1901 commenced to make its said soap in a unique and distinctive cake having a face of octagonal shape. By reason of the extensive advertising and exploitation of said unique and distinctive cake having a face of octagonal shape and plaintiff's continuous, notorious and exclusive use thereof, said shape, when used for a toilet and bath soap of red color and/or having a cresylic or carbolic odor, long prior to the acts of defendant hereinafter referred to, had acquired and now possesses a secondary meaning denoting said soap of plaintiff and of no other person and had become and now is a means by which plaintiff's said soap is recognized and purchased.

That prior to the time plaintiff placed its said product on the market, no toilet and bath soap of said distinctive shape and red in color and/or having a cresylic or carbolic odor had ever been manufactured or sold by any other manufacturer or dealer in the United States.

That neither said color, shape, nor odor (as distinguished from the cresol with which it is associated) serve any functional purpose whatsoever in the manufacture or utility of the soap.

In about 1888 plaintiff's predecessors adopted, applied and used, as a trade-mark to indicate the origin and genuineness of soap manufactured and marketed by it, the word, "Lifebuoy," and thereafter continued to use said word until its business was taken over by plaintiff and thereafter said use of said trade-mark has been continued by plaintiff.

Plaintiff is the owner of sundry registrations of trademarks duly made by plaintiff and its predecessors in the United States Patent Office in accordance with the laws of the United States, and particularly Registration No. 25,871 of January 15, 1895, duly renewed in 1925, No. 23,905 of January 22, 1895, duly renewed in 1925, both of the word "Lifebuoy," No. 57,713 of November 27, 1906, duly renewed in 1926, of the mark "Lifebuoy" in its alternative pictorial and verbal forms, and No. 284,089 of June 16, 1931, of one of the particular forms of carton used by plaintiff.

Defendant, well knowing the facts aforesaid, commenced the manufacture and sale of said soaps after the expenditure by plaintiff of many millions of dollars in popularizing and making known to the purchasing public the peculiar characteristics of Lifebuoy soap; and defendant is manufacturing and selling said soaps aforesaid

with the deliberate design and purpose of deceiving the public and the buyers thereof and of trading upon the fame and good-will of plaintiff's said product.

Conclusions of Law

(1) The name "Lifebuoy" as applied to toilet and bath soaps is a valid trade-mark and is owned by plaintiff.

(2) The acts of defendant constitute an infringement of plaintiff's trade-mark rights and unfair competition with plaintiff.

(3) Plaintiff is entitled to an injunction as prayed for in the complaint.

(4) Plaintiff, having waived costs and an accounting for damages and profits, the decree to be entered hereon will omit provisions for costs and an accounting.

BRITISH RETAILERS PROTEST SOAP DEALS

Opposition by British retailers' organizations to sales projects introduced by soap manufacturers has been steadily growing in the United Kingdom. At a recent meeting of the Sunderland Grocers' Association disapproval was expressed at a plan launched by a leading soap firm, despite the fact that many retailers had already taken it up. It was finally decided to circularize all members with the request that they should in future hold up all sales deals and plans pending approval by the executive council.

FRENCH SOAP IMPORTS MUST SHOW ORIGIN

On and after September 30, to conform with the requirements of a French official decree, dated June 28, soaps imported into France must indicate origin in a prescribed manner. The indication of origin should be shown in letters at least 3 mm. high in the composition of each cake and on the box containing it. In the case of hard soap, the indication should be printed in the composition of each bar, piece, or cake, and on the immediate packing if the soaps are offered to the consumer packed. With soft and liquid soaps, flakes, and powders, the indication should be placed on each inside and outside packing — barrel, tin, bottle, sack, box, wrapping, etc.

The New York Public Service Commission has approved lower commodity freight rates as follows: On *caustic potash, carload*, minimum weight in drums, 36,000 pounds, and in tank cars, from Solvay and Syracuse to Suspension Bridge, 13.5 cents per hundredweight. On *soda ash, carload*, minimum weight in bags or in bulk, 50,000 pounds, and in bulk in barrels or in metal cans in barrels or in other packages, 40,000 pounds, from Solvay and Syracuse to Johnson City, Endicott, Oswego, Waverly and Elmira, 13 cents per hundredweight.

Earl H. Daniel has formed Its-It Products in Elmira, N. Y., and will start production of soap and paste products. The new plant is located at 701 West Gray St.

Noxzema Chemical Co., Baltimore, Md., is distributing four new products: a cleansing cream, a face powder, a sun tan oil and a foot cream.

NEW U. S. ALCOHOL SULFATE PATENTS

Methods of manufacture of wetting and cleansing agents from the higher fatty alcohols, prepared by reduction of common fatty acids, are described in United States patents Nos. 1,968,793, 1,968,794, 1,968,795, 1,968,796 and 1,968,797, of Heinrich Bertsch, issued July 31, 1934, to the American Hyalsol Corp. These are the first United States patents issued relating to the development of higher fatty alcohols described in *Soap* for March and April, 1934 (pp. 25 and 21 respectively), and disclose the manufacture and applications of these products. Both sulfuric acid esters and sulfonates of these alcohols (8 to 18 carbon atoms) are used industrially and are manufactured in the United States by Procter & Gamble Co. and E. I. du Pont de Nemours & Co. and sold under various trade names such as Dreft, Drene, Gardinol, etc. Solicitation of these patents was controlled through the office of Hammond & Littell, attorneys for the American Hyalsol Corporation.

JAPANESE SOAP IN U. S. MARKET

The first Japanese soap known to be sold in the United States has reached the New York market. It is a toilet soap of none too high quality. The product is packed one-dozen ounce-and-a-half cakes to the box and is offered in brown, green, pink and other colors. The product is very apparently designed for the low-price market and its shipment to New York is undoubtedly to try out the market. It is reported that a second shipment valued at several hundred thousand dollars is now en route to this market. The soap is being offered for import at extremely low prices, figures which are stated to be about half of the present cost of American soap makers. A gross of cakes (12 boxes of 12 cakes each to a shipping container) was originally sold for $1.00 by the importer to dealers and house-to-house salesmen. This price was later advanced to $1.10 per gross.

In 1932, Japanese toilet and household soap exports were valued at 1,190,000 yen, while in 1933, they jumped to 2,500,000 yen in spite of lower prices. Quality has been greatly improved over the past year or two, and this coupled with low wages and depreciated currency, has placed the Japanese soap maker in an advantageous position. Prior to the war, Japan was a soap importer, but of necessity had to develop her own industry when the war cut off supplies. The situation has completely reversed itself so that Japan is now a large exporter especially to the Far East, Manchuria, Siam, etc. Her position on raw materials with Manchuria close at hand and with a plentiful supply of fish oils is a further advantage. Much money and research time have been spent during the past few years on oil and fat refining, and especially hydrogenation.

Special deals on soap products came in for condemnation at a recent meeting of the Board of Directors of the Retail Grocers' Association of San Francisco.

CHICAGO TRADE NOTES

THE August tournament of the Golf Auxiliary of the Chicago Drug and Chemical Association and the Chicago Perfumery, Soap and Extract Association was held at Olympia Fields Country Club on the 14th of the month. Prizes were awarded as follows: Class A: Walter H. Jelly, first with 92-15-77; Elmer Smith, second with 84-4-80; John Wilhelm, third with 88-8-80; Class B: W. H. Muttera first with 92-19-73; R. L. Holland second with 94-18-76; A. J. Anderson third with 94-16-78; Class C: L. A. Solo first with 124-50-74; Joseph DeLorme second with 127-50-77; C. P. Van Schaack third with 109-31-78. The final tournament of the year was held September 11th at the Glen Oak Country Club.

The Sherman Hotel was the scene of the 15th Annual Convention of the American Cosmeticians Association August 20-22. All business sessions were well attended as were the social functions in the evening. Mrs. Winnifred Fayant was elected president for the coming year.

Arthur E. Bennett, formerly associated with Albert Verley, Inc., has gone into business for himself. The new firm which will be known as Arthur E. Bennett, Inc., has opened offices at 109 W. Austin Ave. and will deal in a general line of essential oils.

Frank B. Kloch, president of Murray & Nickell Mfg. Co., died August 23rd in his winter home in Pasadena, Cal. Mr. Kloch was born in Freeport, Ill., 75 years ago and at the time of his death was honorary president of the Botanical Drug Association. He is survived by one son, Harold F. Kloch, who has been the active head of Murray & Nickell for some time.

F. C. Theile, president of P. R. Dreyer, was in Chicago for a few days the early part of September.

William A. Rowe, purchasing agent for the soap department of Swift & Company, recently returned after a stay at Hudson Lake, Michigan.

Dudley F. Lum, Chicago manager for Givaudan-Delawanna, Inc., New York, accompanied by his wife and family, recently returned from an extended pleasure trip through the East.

O-Cedar Company, Chicago, is engaged in merchandising a special deal for the fall house cleaning season. The special, which consists of a can of O-Cedar self-polishing wax together with a wax applier and handle, retails for 89 cents. Each 1/3 dozen is packed in counter display with three color window hanger. In accordance with the price maintenance policy adopted by the company some time ago the dealer's full profit is protected.

U. S. Bottlers Machinery Co., Chicago, have just published an interesting brochure on the uses of Polar water stills. U. S. Bottlers recently acquired the exclusive rights to manufacture and sell this equipment through purchase of the Polar Engineering Co.

Carroll Perfumers, Inc., has been organized in Fort Wayne, Ind., to manufacture and sell, perfumery, toiletries, soaps, dentifrices, etc. Incorporators are A. Krause, Morris Walhimer and Samuel P. Benjamin, all of New Haven, Conn.

LEVER PLANT CLOSED IN STRIKE

The Lever Brothers Company $5,000,000 model soap plant at Hammond, Ind., has been closed since August 13 as a consequence of the strike called by the United Soap and Glycerin Workers' Union, August 6. Bruce Vernon, plant manager, has announced that the plant will remain closed indefinitely, and late reports indicate that complete removal of the plant to another locality is contemplated. Company officials state that an undisclosed city has offered to pay all moving expenses, donate a factory site and waive taxes for ten years. No definite indication has yet been given that the offer would be accepted.

The two points at issue in the strike are a demand for a wage increase and insistence on recognition of seniority rules. The first demand presented by the head of the union, J. L. Longbrake, was for a raise of common labor rates to 75 cents an hour, an increase of 36 per cent. The company offered to institute seniority rules as to layoffs and re-employment, but retained the right to promote or demote employes according to ability. This was satisfactory to the union, which reduced its wage demands to a 10 per cent increase for employes getting less than 80 cents an hour, and 5 per cent for the higher paid group. This was refused by the company, which, in turn, offered during the early negotiations to raise the common labor rate to 58 cents, establishing a minimum wage of $20.90 a week for the lowest paid employes. This offer was withdrawn following an outbreak of violence by strike pickets.

The strike proceeded without violence during the first week, at the end of which time some 165 employes out of a total of 360 had returned to work. On the morning of August 13th the pickets massed in front of the plant to bar entrance of non-striking workers and trouble resulted. One striker was seriously injured when struck by a car entering the plant. It was after this disturbance that the plant was closed. Mayor Charles Schonert who had been trying to effect an agreement between the two groups called in a federal mediator, William F. White. At press time there was no indication that any solution was in prospect.

SOAP presents a *perfuming problem* of a special character. To handle it successfully requires intimate knowledge of soap manufacturing and, above all, experience with soap perfumes.

We have done a considerable amount of work along those lines, and offer several series of soap perfumes of *tried worth.*

Send for *smelling samples.*

Almond	Lemon
Almond—Rose	Lilac
Almond—Cocoa	Lily
Antiseptic Odor	Mint
Bouquets of great variety	Narcissus
Carnation	Orange
Cedar	Oriental
Citrella	Patchouly
Cologne	Pine
Fougere	Pineapple
Gardenia	Rose
Geranium	Sandalwood
Girella	Sweet Pea
Jasmin	Verbena
Lavender	Violet

Also many odors for shampoo and liquid soap

van Ameringen-Haebler, Inc.

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315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
438 West 48th St., Los Angeles
42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

PERSONAL AND IMPERSONAL

Dr. Thomas M. Sayman, president of Thomas M. Sayman Products Co., St. Louis, has given a $500 reward to police captain Eugene Le Pere, Belleville, Ill., who killed two bandits in a recent hold-up. Mr. Sayman offered to give an additional $1,000 to start a permanent fund for officers who shoot it out with bandits.

L. H. Hartland-Swann, well-known British soap man and director of Lever Brothers, Ltd., and Unilever, Ltd., who broke his ankle on his way back from vacation in Norway last month, is now reported out and about.

C-Z Chemical Co., Beloit, Wis., makers of soaps, disinfectants, insecticides, waxes, etc., has occupied new and larger quarters and is now employing twenty people. Production was recently started on soap chips by a new process developed by Charles Zimbler, head of the firm. Another new addition to the line is a water softener and soap for use in clay water.

Lester E. Scott, vice-president of L. E. Scott Co., cleaning fluid manufacturers, Southington, Conn., died in Meriden, Conn., August 27.

Pan American Soap Co. has been formed in Tampa, Fla., by John Boushall, W. A. Waltka and G. S. Lenfestly.

Kay Tee Products Co., powdered soaps and household cleaners, is now located at 814 Bergen St., Brooklyn. Charles Klein heads the organization.

Brillo Manufacturing Co., Brooklyn, reports net profit of $74,696 for the six months ended June 30, 1934, equal to 30c. a share on 160,000 shares of common. This compares with $78,416, or 32c. a share, in the first half of 1933.

Massed displays of the products of Colgate-Palmolive-Peet Co. in 146 drug stores have resulted in doubling sales, according to the report of a test campaign recently made public by W. R. Veale, manager of the toilet article department.

Gold Dust Corporation reports for the year ended December 31 last, net income —of $2,666,029, equivalent to $1.30 a share on 1,772,900 shares of common stock and $44.43 a share on 60,000 shares of $6 preferred. For the six months ended June 30, net income, was $1,039,104, after charges, equal to 48 cents a share on 1,786,002 common shares.

Los Angeles Soap Co. has been awarded a judgment of $31,718 in its action against the United States Shipping Board based on contamination of a cargo of 273 tons of coconut oil carried on the *West Cajoot*. The suit was instituted four years ago.

Richards Chemical Works, Jersey City, N. J., has developed a new soapless carpet scourer. They state that it can be built up to suds profusely, or, if preferable, sudsing can be eliminated entirely.

B. T. Babbitt Co. has ordered five new-type tank cars from the General American Transportation Co. for use in hauling alkalis, feldspar, etc. The new car does away with labor in unloading and minimizes labor in loading. This is the largest fleet of this type car yet to be adopted by a single company.

Thomas Edward Goodyear, chairman of Stafford Allen & Sons, well-known British manufacturing chemists and essential oil distillers, died at Bromley, England, on August 14. Mr. Goodyear was for many years one of the senior partners of Viney, Price & Goodyear, chartered accountants. He joined the directorate of Stafford Allen & Sons in 1915 and became chairman on the death of Chairman E. R. Allen in 1916.

The directors of Colgate-Palmolive-Peet Company have declared the regular quarterly dividend of $1.50 a share on the preferred stock, payable October 1 to stock of record September 10. As of June 30, cash and marketable securities equalled about 65 per cent of all preferred stock outstanding, and the ratio of net tangible assets to outstanding preferred was 232 per cent. Net current assets were 137 per cent of preferred. Earnings for the first six months equalled $9.76 per share of preferred.

Kelly Cream Soaps, Inc., has been organized in Columbia, S. C., to manufacture soaps, creams, insecticides, etc. Officers are J. J. Kelly, president, J. S. Kelly, vice-president, and J. S. White, secretary-treasurer.

White King Soap Co., Los Angeles, in an attempt to increase its unit of sale, is offering a free bottle of perfume with each seven cakes of White King toilet soap. The retailer does not handle the perfume — the seven wrappers being sent to the factory to get the premium.

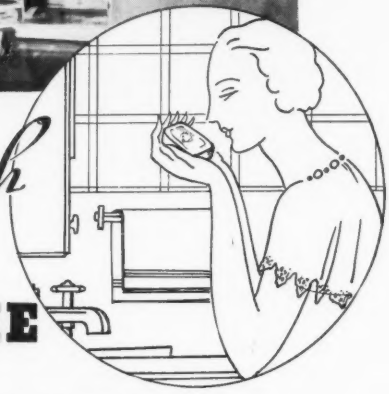
Perfect Polish Co., formerly at 99 Broadway, Brooklyn, has moved to 111 South 6th St.

Fragrant at the Counter...

Fragrant in the Soap dish

when they're

PERFUMED *by* FRITZSCHE



ALL too many soaps lose their odor as soon as they reach the soap dish. And fleeting odors make fleeting customers. Fritzsche's Soap Perfumes never wash away. They retain their original scent until the cake is but a shadow of its former self. They are carefully made according to our own scientific formulae that represent the accumulated knowledge of 61 years experience. Besides, we maintain a miniature soap factory where soap is made containing Fritzsche perfumes. This soap is then exposed to the same conditions as prevail at the store and at home. And only after the perfume has demonstrated that it retains its odor against the most adverse influences is it sold.

MAKE *sure* of perfume performance in the soap dish. Use Fritzsche perfumes. Let us design a new odor for your soap if sales are lagging. Or if you are satisfied with your present perfume but uncertain as to its performance let us prepare it according to the special Fritzsche formulae. *Samples and further particulars on request*.

"Fragrance Creates Sales Appeal"

FRITZSCHE Brothers, inc.

164 SO. CENTRAL AVENUE, LOS ANGELES, CAL.

Proprietors of PARFUMERIES de SEILLANS, Seillans, France
FRITZSCHE BROTHERS, of Canada, Ltd., 77-79 Jarvis St., Toronto, Canada

78-84 BEEKMAN STREET
NEW YORK, N. Y.
118 WEST OHIO ST. CHICAGO, ILL.

Purity Soap Co., Minneapolis, has been reorganized as the Purity Soap & Chemical Co. The new company is located at 100 Humboldt Ave., N.

James Webster, late managing director of John Knight, Ltd., London, well-known soap concern associated with the Lever group, left estate worth £51,244 ($256,220). Mr. Webster, who had been in the service of Knights for 52 years, left his entire fortune to his widow, Mrs. Marion Campbell Webster.

Michigan Alkali Co. has moved its New York office from 10 E. 40 St. to the Lincoln Bldg. This includes the Fumigant as well as the Alkali Division.

Colgate-Palmolive-Peet Co. has appointed Frank W. Hill as Canadian Western district manager for the company. Formerly Mr. Hill was district manager for Alberta and British Columbia for a number of years. He will now be in charge of territory from Port Arthur, Ontario, to the Pacific Coast.

Manhattan Soap Sales Corporation has appointed Robert Gaynor of Philadelphia as sales representative in the Philadelphia and eastern Pennsylvania territory.

Procter & Gamble Co. is using a twice-a-week radio broadcast to advertise "Ivory" shaving cream in the New England market.

Bristol-Myers Co. reports net income of $1,022,047 for the first six months of 1934, equal to $1.46 a share. This compares with $1,228,062, or $1.75 a share for the same period of 1933.

Anchor Cap & Closure Corp., L. I. City, has acquired the Salem Glass Works, Salem, N. J., bringing its production of glass containers up closer in line with its cap business.

DeMott Cosmetic Co., New York, is bringing out a new sulfur shampoo. Another new product is an effervescent bath salt.

Calgon, Inc., manufacturers of "Calgon", a sodium metaphosphate detergent, has appointed the following jobbers: American Oil & Supply Co., Newark; Alden Speare's Sons Co., New York, Boston, Detroit, Chicago and Kansas City; Carman & Company, New York, Buffalo and Chicago; Carman Distributing Co., Omaha; Carman-Roberts Co., Pittsburgh; Dallas Tailor & Laundry Supply Co., Dallas; The Fry Bros. Co., Cincinnati; L. R. Mace Co., Rock Island; McCleary Bros., Inc., Memphis; Morris & Eckels Co., Baltimore; Rudolph Ramelli, Inc., New Orleans; G. S. Robins & Co., St. Louis; E. J. Rutherford & Co., Philadelphia; John T. Stanley & Co., New York; Chas. Tennant & Co., Limited, Canada; The Wilbert-Miller Co., Cleveland and Woodley Supply Co., Boston.

A brief on application for a temporary injunction has been filed by Procter & Gamble Manufacturing Co. in the U. S. District Court for Maine against the Maine Cosmetic Act. Clyde R. Chapman, Maine attorney general and others are named as defendants. The Maine authorities have until Oct. 1 to file an answering brief. A limited number of copies of the brief in printed form are available at the office of the Association of American Soap and Glycerine Producers, 386 Fourth Ave., New York.

Ralph H. Aronson, Bourjois, Inc., has been elected chairman of the Code Authority for the Perfume, Cosmetic and Other Toilet Preparations Industry and Frederick N. Dodge, Harriet Hubbard Ayer, Inc., has been named treasurer. Charles S. Welch, formerly secretary of the A.M.T.A. has resigned this position as well as his official membership on the Code Authority, and will act as secretary of the Code group. His position on the Code Authority has been filled by the election of Herman L. Brooks, Houbigant, Inc. A budget has been approved by the Finance Committee and sent to N.R.A. for approval. Provisions of the Code which are receiving immediate attention are the open price regulations and the order to identify demonstrators properly.

Port City Packing Co., Houston, Texas, has recently organized a subsidiary company to manufacture soap—the Texas Soap Manufacturing Company. Approximately $20,000 has been invested in plant and equipment and twenty-five persons employed. The first product is a yellow laundry soap to be sold under the brand name "Texso". Later a white soap and eventually a toilet soap will be added. The new plant has a kettle capacity of 40,000 to 50,000 pounds weekly. Officers include J. W. Sartewelle, president; W. A. Paddock, vice-president; W. S. Cochran, secretary-treasurer, and T. D. Harral, superintendent.

Soap Specialties Corp. has been organized in Wilmington, Del., by M. M. Lucey, H. I. Brown and L. S. Dorsey to manufacture and sell soap and soap specialties.

H. L. Brooks, formerly for many years sales manager of Coty, Inc., New York, has been appointed general manager and treasurer of the company. Mr. Brooks, after an interruption of two years, resumes his connection with the firm with which he commenced his business career twenty years ago. More recently he has been general sales manager of Houbigant, Inc.

The Wrigley Pharmaceutical Company, Atlantic City, N. J., maker of Spearmint toothpaste, has appointed Jerome B. Gray & Company, Philadelphia agency, to direct its advertising account.

A MANY SIDED PRODUCT MEETS A MANY SIDED CAP

AFTER a number of years on the market, Sunrae, product of the Sinclair Manufacturing Company, Toledo, Ohio, steps out in new dress. Naturally, it had to have a new cap to top off the new package—but though newly designed, that cap remains the old, familiar Anchor Amerseal.

Frankly, we don't know how to classify this product. It's a disinfectant; it's a cleanser; it's a bleach; it's an antiseptic, a germicide, an insecticide, and it's a deodorant. Perhaps it's other things, too, but at any rate, it is highly active chemically. What closure could be more appropriate for this many sided household helper than the cap that seals so many hundreds of drug and chemical products of all kinds and descriptions—the Anchor Amerseal? There are no threads to trap a corrosive product in contact with the metal of the cap; just a couple evenly spaced, double-notched lugs that assure tight, even contact and a leak-proof, evaporation-proof seal. With correct specification of the liner material, sealing of even the most rebellious products presents no problem. There are other advantages, too, covered in our book "The Anchor Amerseal Cap," a copy of which we will gladly send you on request.

ANCHOR CAP & CLOSURE CORPORATION
LONG ISLAND CITY, N. Y. TORONTO, CANADA

Branch Offices: ATLANTA · BOSTON · CHICAGO · CLEVELAND · DETROIT HOUSTON · LOS ANGELES · LOUISVILLE · MONTREAL · NEW YORK · PHILADELPHIA · PITTSBURGH · ROCHESTER · SAN FRANCISCO · ST. LOUIS · TORONTO

ANCHOR CLOSURES FOR SOAPS & INSECTICIDES

RECORD OF TRADE-MARKS

The following trade-marks were published in the August issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

TRADE MARKS FILED

HYTEXAL—This in outline letters describing cleaning compound. Filed by M. Werk Co., St. Bernard, Ohio, June 27, 1933. Claims use since Feb. 20, 1928.

REDOTEX—This in outline letters describing cleaning compound. Filed by M. Werk Co., St. Bernard, Ohio, June 27, 1933. Claims use since Apr. 15, 1933.

SOLTEX—This in outline letters describing cleaning compound. Filed by M. Werk Co., St. Bernard, Ohio, June 27, 1933. Claims use since —June 19, 1933.

WERKO—This in outline letters on carton describing cleaning compound. Filed by M. Werk Co., St. Bernard, Ohio, June 27, 1933. Claims use since May 15, 1927.

WERKITE—This in outline letters describing cleaning compound. Filed by M. Werk Co., St. Bernard, Ohio, June 27, 1933. Claims use since June 15, 1928.

JAY BEE—This in solid letters together with sketch of bee, describing cleaners, polishes, soaps, washing compounds, etc. Filed by Jaburg Bros., Inc., New York, Mar. 20, 1934. Claims use since April, 1915.

MIX-IT—This in tooled letters describing powdered hand soap preparation. Filed by Mix-It Hand Soap Co., West Somerville, Mass., May 17, 1934. Claims use since May 6, 1932.

ALADDIN—This in solid letters together with lamp, describing paper towels and paper soap sold as a unit. Filed by Roybar & Co., Chicago, May 21, 1934. Claims use since Mar. 15, 1934.

DOUBLE-QUICK—This in script describing tooth paste. Filed by Western Co., Chicago, Mar. 19, 1934. Claims use since Feb. 19, 1934.

TARSO—This in solid letters describing insecticides and fungicides. Filed by Sherwin-Williams Co., Cleveland, Apr. 25, 1934. Claims use since Mar. 31, 1934.

FLORI—This on reverse plate describing mothproofing material. Filed by Flori Moth-Proofing Method, Philadelphia, May 23, 1934. Claims use since May 9, 1934.

E F & H—This in broken letters describing soaps for textile, laundry and metallurgical purposes. Filed by E. F. Houghton & Co., Philadelphia, June 28, 1934. Claims use since June 7, 1934.

STACO—This in tooled letters describing soap paste. Filed by Sta-Kleen Products Co., Woburn, Mass., June 28, 1934. Claims use since Mar. 19, 1934.

MAFOS—This in solid letters describing alkali cleanser in the form of fused cakes. Filed by Mathieson Alkali Works, New York, June 29, 1934. Claims use since June 16, 1934.

QUAL-AD—This in type resembling script, within circle, describing tooth paste. Filed by V. B. Corp., Pittsburgh, Dec. 23, 1933. Claims use since Dec. 11, 1933.

HALT A MOTH—This on reverse plate describing formula for moth control. Filed by Voisard, Inc., Galion, Ohio, May 22, 1934. Claims use since Apr. 25, 1934.

LIGHTNIN—This in solid letters with lightning flash, describing bleaching compounds. Filed by Edward W. Martin, Coral Gables, Fla., June 6, 1934. Claims use since Sept. 1, 1932.

LEMPOO—This in solid letters describing lemon shampoo. Filed by Citra, Inc., Redland, Fla., June 7, 1934. Claims use since Mar. 5, 1934.

ROSELUX—This in solid letters with sketch of linen cn line, describing water softener, bleach, disinfectant, etc. Filed by Roselux Chemical Co., Brooklyn, June 12, 1934. Claims use since Nov. 1, 1932.

JINGLE—This in solid letters describing cleanser. Filed by Sax-On Paint Stores, Chicago, May 7, 1934. Claims use since Mar. 1, 1930.

ESCOL—This in solid letters describing chemical detergent. Filed by Cowles Detergent Co., Cleveland, June 18, 1934. Claims use since Jan. 4, 1934.

TICO—This in solid letters resembling script describing cleaning powder. Filed by the Interstate Co., Chicago, June 22, 1934. Claims use since June 5, 1934.

SKETCH OF DOG AND CAT against designated modernistic background describing insecticides. Filed by Wm. Cooper & Nephews, Inc., Chicago, May 25, 1934. Claims use since Dec. 18, 1931.

KUR-MAIGE—This in solid letters describing insecticides. Filed by Wm. Cooper & Nephews, Inc., Chicago, May 25, 1934. Claims use since May 4, 1934.

POPPY—This in solid letters describing soaps, chips and cleansers. Filed by Pioneer Soap Co., San Francisco, Dec. 6, 1933. Claims use since October, 1913.

SATUROL—This in solid letters describing cleansing compound. Filed by Oakite Products, Inc., New York, Jan. 18, 1934. Claims use since Dec. 26, 1933.

SPIRAL—This on reverse plate describing polish, cleaning compounds, oil soap, etc. Filed by Cochran Co., Cleveland, June 29, 1934. Claims use since June 23, 1934.

HOLLYWOOD—This in outline script with sketch of chorus, describing toilet soap. Filed by Colgate-Palmolive-

Peet Co., Jersey City, July 10, 1934. Claims use since June 1, 1934.

CALSIBAN—This in broken letters describing soap. Filed by Perkins Soap Co., Springfield, Mass., July 10, 1934. Claims use since January, 1932.

PERZONE—This in broken letters describing soap. Filed by Perkins Soap Co., Springfield, Mass., July 10, 1934. Claims use since February, 1933.

DOUBLE B—This in solid letters describing insecticide. Filed by Double B Products Co., Hartford, Conn., Nov. 21, 1933. Claims use since March, 1932.

SPEED—This in solid letters describing dentifrice and mouth wash. Filed by Speed Chemical Co., Milledgeville, Ga., June 8, 1934. Claims use since May 8, 1934.

VIGUM—This in solid letters, with sketch of teeth, describing tooth powder. Filed by Vigum Laboratories Co., Milwaukee, July 12, 1934. Claims use since June 12, 1934.

TRADE MARKS GRANTED

315,154. Toilet Soap. Colgate-Palmolive-Peet Co., Jersey City, N. J. Filed March 24, 1934. Serial No. 349,071. Published May 8, 1934. Class 4.

315,241. Metal Polish. Crescent Products Co., Chicago. Filed May 24, 1933. Serial No. 338,184. Published July 25, 1933. Class 4.

315,265. Cleaner. Paraffine Companies, Inc., San Francisco. Filed March 22, 1930. Serial No. 297,766. Published May 15, 1934. Class 4.

315,340. Latherless Shaving Cream. Mark W. Allen & Co., Detroit. Filed March 30, 1934. Serial No. 349,306. Published May 15, 1934. Class 4.

315,426. Hand Cleanser, Cleaning Compound, Silver Polish and Washing Powder. W. T. Rawleigh Co., Freeport, Ill. Filed November 15, 1933. Serial No. 343,708. Published May 15, 1934. Class 4.

315,449. Polish and Cleaner. Haymon Krupp Products Corp., El Paso, Tex. Filed March 30, 1934. Serial No. 349,320. Published May 22, 1934. Class 4.

315,455. Mineral Soap. Mineral Soap Co., Burlington, Iowa. Filed March 26, 1934. Serial No. 349,150. Published May 22, 1934. Class 4.

315,579. Germicides, Disinfectants, Cleansers and Washing Solutions. Klenox Chemical Co., Carthage, N. Y. Filed February 2, 1933. Serial No. 334,548. Published June 13, 1933. Class 6.

315,582. Antiseptics. Sanis Co., New York. Filed March 23, 1934. Serial No. 349,001. Published May 22, 1934. Class 6.

315,588. Waxes and Polishes. Auto Color Wax Co., Detroit. Filed March 1, 1934. Serial No. 348,055. Published May 22, 1934. Class 16.

315,594. Glass Cleaning Preparation. Nourse Oil Co., Kansas City, Kans. Filed November 27, 1933. Serial No. 344,200. Published May 22, 1934. Class 4.

315,722. Roach Exterminator. C. I. Ragan and Co., Tulsa, Okla. Filed May 3, 1933. Serial No. 337,440. Published May 29, 1934. Class 6.

315,791. Shaving Cream and Brushless Shaving Cream. Corcoran, Inc., New York. Filed October 6, 1933. Serial No. 342,175. Published May 29, 1934. Class 4.

315,872. Antiseptic and Germicidal Product. Wm. S. Merrell Co., Cincinnati. Filed October 6, 1933. Serial No. 342,196. Published December 5, 1933. Class 6.

315,969. Insecticide. York Chemical Co., New York. Filed April 12, 1934. Serial No. 349,872. Published June 5, 1934. Class 6.

315,970. Disinfectant. West Disinfecting Co., Long Island City, N. Y. Filed April 11, 1934. Serial No. 349,852. Published June 5, 1934. Class 6.

316,076. Insecticide. William J. Hodgkinson, Jr., Brooklyn. Filed March 15, 1934. Serial No. 348,677. Published June 5, 1934. Class 6.

316,104. Soap Chips, Soap Flakes, and Toilet Soap. Holman Soap Co., Chicago. Filed April 20, 1934. Serial No. 350,244. Published June 5, 1934. Class 4.

316,143. Cleaning Composition. Kitcheneed, Aurora, Ill. Filed April 23, 1934. Serial No. 350,400. Published June 5, 1934. Class 4.

316,179. Compound for Bleaching, Cleansing, Deodorizing, and Disinfecting. My-Aid Products Co., Chicago. Filed March 28, 1934. Serial No. 349,240. Published June 12, 1934. Class 6.

316,241. Cleansing Preparation. Hockley Products Co., New York. Filed March 12, 1934. Serial No. 348,531. Published June 12, 1934. Class 4.

316,286. Brushless Shaving Cream, Lather Shaving Cream. Clover Farm Stores Corp., Cleveland. Filed December 8, 1933. Serial No. 344,633. Published June 12, 1934. Class 4.

316,455. Antiseptic Soap. Tennessee Eastman Corp., Kingsport, Tenn. Filed May 2, 1934. Serial No. 350,817. Published June 19, 1934. Class 4.

316,459. Shaving Cream. Parke, Davis & Co., Detroit. Filed May 2, 1934. Serial No. 350,805. Published June 19, 1934. Class 4.

316,462. Soap and Shaving Cream. Daggett & Ramsdell, New York. Filed May 1, 1934. Serial No. 350,752. Published June 19, 1934. Class 4.

316,522. Insecticide. Montclair Laboratories, Montclair, N. J. Filed April 28, 1934. Serial No. 350,638. Published June 19, 1934. Class 6.

316,534. Insecticide. Marvel Products Co., Jacksonville, Fla. Filed February 8, 1934. Serial No. 347,148. Published May 1, 1934. Class 6.

316,593. Tooth Paste. Halitosine Co., St. Louis. Filed March 26, 1934. Serial No. 349,134. Published June 12, 1934. Class 6.

316,622. Tooth Paste. Lambert Pharmacal Co., Wilmington. Filed December 22, 1932. Serial No. 333,292. Published June 19, 1934. Class 6.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

815 15th St., N. W., Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 1,967,393, Detergent Composition, Patented July 24, 1934, by William S. Calcott, Penns Grove, N. J., and George Henry Cheney, Newport, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del. A composition of matter, useful in cleaning metallic surfaces, which comprises about 4 parts of an alkali metal carbonate, about 0.4 parts of a sulfonic acid derivative of an alkylated aromatic hydrocarbon and about 1 part of an organic solvent of the group consisting of amyl alcohol and cyclohexanol.

No. 1,967,024, Insecticide, Patented July 17, 1934, by Stewart C. Fulton, Elizabeth, N. J., assignor to Stanco, Incorporated. An insecticide comprising pyrethrins and the active extract containing rotenone obtained from a plant.

No. 1,967,394, Detergent Composition, Patented July 24, 1934, by William S. Calcott, Penns Grove, N. J., and George Henry Cheney, Newport, Del., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del. A composition of matter, useful in cleaning metallic surfaces, containing about 4 parts of trisodium phosphate, about 0.4 parts of a sulphonic acid derivative of an alkylated aromatic hydrocarbon containing at least two benzene nuclei, and about 1 part of an organic solvent immiscible with water.

No. 1,967,825, Bactericidal Compound, Patented July 24, 1934, by Emil Klarmann, Jersey City, and Louis William Gatyas, Bloomfield, N. J., assignors, by mesne assignments to Lehn & Fink, Inc., Bloomfield, N. J. An unsymmetrical mono - chloro - hydroxyl - substituted diphenylmethane having the chlorine and hydroxyl groups substituted in different rings.

No. 1,968,304, Ink Remover, Patented July 31, 1934, by Ralph H. McKee and Frederick A. Hessel, New York, N. Y. A substantially non-aqueous cream for the removal of ink stains from the skin containing about 500 grams of zonc stereate, about 300 grams of citric acid, about 500 cc. of 95 per cent ethyl alcohol and about 2,000 cc. of diethylene glycol.

No. 1,968,628, Powdered Soap Product, Patented July 31, 1934, by William H. Alton, New York, N. Y., assignor to R. T. Vanderbilt Company, Incorporated, New York, N. Y. A soap powder consisting of from 10 to 70 per cent of soap, and from 30 to 90 per cent of water-insoluble dusting material from the group consisting of pyrophyllite, talc, mica and starch as essential ingredients, the dusting material having been ground with the soap in such manner that it coats or glazes the particles of soap, the particles of the powder being ground to such fineness that áll will pass a 40 mesh screen, substantially all will pass a 60 mesh screen and at least 90 per cent will pass a 100 mesh screen.

No. 1,968,752, Detergent Composition, Patented July 31, 1934, by George S. Evans, Bronxville, N. Y., assignor to The Mathieson Alkali Works, Inc., New York, N. Y. A dry-fused detergent alkaline salt mixture in the form of a solid body comprising as essential ingredients trisodium phosphate and soda ash blended in the proportions by weight of 1 to 9 parts of tri-sodium phosphate to 1 to 9 parts of soda ash.

No. 1,968,753, Solid Detergent, Patented July 31, 1934, by George S. Evans, Bronxville, N. Y., assignor to The Mathieson Alkali Works, Inc., New York, N. Y. A fused detergent alkaline salt body of approximately semi-spherical shape and suitable for maintaining the proper degree of alkalinity of the wash water in dish washing machines comprising soda ash as a major ingredient, the cake having a ratio of surface area in square centimeters to weight in grams between .4 and .9.

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The annual consumption of soy bean oil in the U. S. is as follows:

	Pounds
Oleomargarine and lard substitutes	1,500,000
Paints and lacquers	9,000,000
Soaps and candles	9,000,000
Linoleum and oilcloth	4,000,000
Printing ink	3,500,000
Cooking oil, mayonnaise, etc.	5,000,000

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L. S. Stephens has been elected to succeed D. B. Piersen as president of Stephens-Adamson Mfg. Co., Aurora, Ill., manufacturers of conveyors and special soap machinery. Mr. Piersen, one of the founders of the firm in 1901, has been made chairman of the board succeeding W. W. Stephens, resigned.

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United Kingdom's soap exports for the second quarter of 1934, totalled 10,100 tons, as compared with 10,300 tons for the corresponding period of 1933, according to official figures just issued. For the first three months of 1934, shipments amounted to 11,000 tons.

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Dow Chemical Co., Midland, Mich., has just issued a 100-page catalog giving complete information on the specifications, properties and uses of the 250 products manufactured by the company.

SOLVAY
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PRODUCTS

SODA ASH
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STEAR-IC ACID
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Controlled Production:
We collect, render and refine all of the raw materials used in our stearic acid and red oil. This close control, not available in any other brand, insures high quality products by eliminating low grade raw materials. Let us submit samples and prices. There is no substitute for quality. Use them in your

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Fatty Acids

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KEARNY, N. J.
ESTABLISHED 1914

CONTRACTS AWARDED

Armour & Co., Chicago, has been awarded a contract for 18,000 lbs. laundry soap for the Chicago U. S. Army Quartermaster at a price of 2.735c. Samuel M. Sher, Chicago Heights, awarded 37,080 lbs. laundry soap at 2.903c. John Sexton & Co., Chicago, awarded 1,000 cakes grit soap at 2.41c. and 600 additional cakes at 2.75c. St. Louis Candle & Wax Co., St. Louis, awarded 3,520 lbs. candles at 11c.

Armour & Co., Chicago, was recently awarded the contract for 18,000 lbs. soap for Chicago U. S. Army Quartermaster at a price of 3.48c.

In a recent procurement bidding at Brooklyn, Colgate-Palmolive-Peet Co. was awarded 3,579 cakes toilet soap at a price of 1.05c. Procter & Gamble Distributing Co. awarded 1,100 cakes toilet soap at 1c. Trade Laboratories awarded 3,045 tubes shaving cream at 4.9c; 3,608 tubes toothpaste at 4.09c, and another order of 4,100 tubes of toothpaste at the same figure.

B. T. Babbitt Co. has been awarded a contract covering 96,000 cans of caustic soda for the Brooklyn U. S. Army Quartermaster at a price of 4.541c.

Armour & Co. has been awarded contracts as follows for the U. S. Penitentiary at Atlanta, Ga.: 50,000 lbs. soap powder at 1.6c, 6,000 lbs. milled toilet soap at 8.5c., 20,000 lbs. laundry soap at 2.92c., and 1,500 lbs. hand grit soap at 5.39c. Swift & Co. awarded 10,000 lbs. chip soap at 5.66c. Selig Co. awarded 1,200 lbs. liquid toilet soap at 21.5c.

American Creosote Works, New Orleans, has been awarded a contract covering 10,000 gallons of creosote oil for U. S. Engineer, New Orleans, at a price of 11.5c.

McKesson-Hartz Drug Co. awarded 1,400 gallons glycerin in 5-gal. cans for Rock Island Arsenal, Ill., at a price of $1.525 gallon.

Crystal Soap & Chemical Co. has been awarded a quantity of auto soap for Post Office Department, Washington, as follows: 10-lb. cans, 4.85c. lb.; 50-lb. cans, 3.24c. lb.; 250-lb. cans, 2.67c. lb., and 500-lb. cans, 2.45c. lb. DuBois Soap Co. also awarded contracts for auto soap as follows: 100-lb. kegs, 2.75c. lb.; 250-lb. barrels, 2.35c. lb.; 450-lb. barrels, 2.14c. lb. Also awarded order for scouring compound, zone 1, 1.39c. lb.; zone 2, 1.66c. lb., and zone 3, 2.05c. lb.

Gold Dust Corp. reports net earnings of $1,039,103 for the first six months of 1934, equal to 48 cents per share on the common. In his statement to stockholders George K. Morrow, chairman of the board, commented as follows: "Volume of business in general, compared with the corresponding period of 1933 was satisfactory, but profit margins have been reduced by greatly increased costs with no opportunity under present conditions to offset any substantial portion of such increases through adjustment of sales prices of the corporation's products."

SOAP INDUSTRY TAX COMMITTEE

The general tax committee of the Association of American Soap and Glycerine Producers, which the general meeting of the soap industry in Chicago last June voted to have appointed, has been appointed by President R. R. Deupree of the Association as follows:

A. Roy Robson, Fels & Co., Philadelphia, Chairman.
F. C. Adams, Andrew Jergens & Co., Cincinnati.
Homer D. Banta, Iowa Soap Co., Burlington, Iowa. (Leo Golden, same firm, alternate)
F. M. Barnes, Procter & Gamble Co., Cincinnati.
Daniel McIver, Original Bradford Soap Works, W. Warwick, R. I.
F. H. Merrill, Los Angeles Soap Co., Los Angeles.
William Newton, Jr., Haskins Bros. & Co., Omaha.
M. J. Pendergast, Lever Brothers Co., Cambridge, Mass.
W. E. Philbrick, Beach Soap Co., Lawrence, Mass.
Mason Trowbridge, Colgate-Palmolive-Peet Co., Jersey City, N. J.
C. F. Young, Davies-Young Soap Co., Dayton, O.

The duties of this committee are to guide, advise, and take action in tax matters for the Association membership whenever necessary. The excise tax on coconut and other vegetable oils is the most important tax matter now under consideration.

Albert Verley, Inc., Chicago and New York, have issued a new 40 page wholesale price list No. 341 describing their varied line of perfuming materials. The new catalog includes a representative array of their outstanding synthetic aromatic products and organic isolates, information regarding a number of their special compounds for perfumes, creams, powders, etc., together with a complete list of natural essences, resinoides and essential oils produced by Tombarel Freres, Grasse, France. Albert Verley, Inc., are also exclusive American representatives for Etablissements Albert Verley, Paris. In the appendix is a compilation of some of the articles prepared by Dr. Albert Verley, including one describing the various elements entering into a perfume and another suggesting various combinations of raw materials.

Market Report on

TALLOW, GREASES, AND OILS

(*As of September* 10, 1934)

NEW YORK—The whole list of soapmaking oils, fats and greases participated in a broad advance this period, with a number of price increases in excess of a cent a pound. A number of factors were behind the upward movement, notably the excise tax which is now making itself definitely felt as vegetable oil users have to make actual cash payments. Another factor was the drought, which while it tended to increase domestic tallow and lard stocks at the moment, will eventually have the effect of reducing them. Added to these factors was a heavy wave of buying as consumers began to sense the necessity of securing stocks before any further advance. Oil and fat brokers reported a very busy month, with orders bulking large both in numbers and total volume.

Coconut Oil

Coconut oil advanced a quarter of a cent a pound this period and is now held at 2¾c. pound. Copra has advanced recently and is quoted at 1.35c. pound.

Corn Oil

Strength of raw material as well as competing product forced another rise in the price of corn oil this period. Mill tanks are now quoted a cent a pound higher at 6½c. pound.

Cottonseed Oil

Cottonseed oil advanced over a cent a pound this period in a strong market. On every recession further buying orders were uncovered, holding the market in firm position. Crude is quoted currently at 6¼c. pound, with offerings light.

Grease

The greases moved higher this month in company with the rest of the market, house and yellow grease gaining three-quarters of a cent a pound and now being priced at 4¼c. to 4¾c. pound.

Stearic Acid

Prices were advanced a half-cent a pound early this period, bringing the current quotation up to 9½c. to 10½c. pound for double pressed.

Tallow

Tallow registered a further gain in price this period, being quoted currently at 4⅞c. pound as against 4⅛c. a month ago. The market eased off moderately later in the period, with offerings light and buyers not disposed to press matters following the advance.

◆

Stocks of refined cottonseed oil on hand in United States as of July 31, 1934, totaled 655,584,187 lbs., as compared with 676,331,574 lbs. on the same date last year. Stocks of crude oil were 35,548,984 lbs., July 31, 1934, as against 51,269,417 lbs., July 31, 1933.

Bing Crosby will start a new series of programs for the John H. Woodbury Co., Cincinnati, Ohio, on a coast-to-coast network on September 18.

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BRITISH SOAP FIGURE DIES

Colonel William Winwood Gossage, who died late in August at his home at Godalming, England, at the age of 72, was a grandson of the founder of the firm of William Gossage & Sons, soap and cleanser manufacturers, Widnes. Col. Gossage was born at Widnes and followed his father into the firm, of which he became head. He retired from the soap trade in 1912. At that time he was living in Lancashire, for which county he was a magistrate and commander of a West Lancashire Brigade of the Royal Field Artillery. Col. Gossage was Mayor of Widnes in 1901-2, the fifth in the line of mayors of this soap town of which his father, F. H. Gossage, was the first in 1892-3.

The Gossage soap firm, with which was coupled the Timmis family, was established about 1855, and was incorporated as a limited company in 1894. Ultimately it was merged in the Lever combine. Two years ago the whole of the big plant at Widnes was closed down and transferred either to Bromborough or to Warrington.

Colonel Gossage was married twice, having one son by his first wife and three by his second. He was a good golfer and a keen shot. He took up yachting late in life and became commodore of the Great Yarmouth Yacht Club.

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PALM OIL IN NIGERIA

The Calabar plantation oil palms gave by the cooker-press process of oil extraction approximately 50 per cent increase in yield over the native washing method, for the fruit of the ordinary thick-shell and the green-fruited thick-shell palms. An increase of approximately 100 per cent in yield of oil was obtained for the mantled thick-shell and the thin-shell palms. The oil extracted from palm-oil fruits picked when just ripe, contained 0.26 to 0.52 per cent of free acids. Oil from very ripe, over-ripe, and very over-ripe fruits contained 1.10, 6.90 and 28.50 per cent of free acids, respectively. Because of the presence of bruised and over-ripe fruits, bulk extractions of oil, even with minimum delay between harvesting and sterilizing, rarely yielded an oil of less than 3 per cent free acid, and more commonly one of 5 to 8 per cent free acid. A. H. G. Smith, D. Manlove and W. A. Watson. *Nigeria Dept. Agr. 10th Ann. Bull.*

◆

Gold Dust Corp., New York, is reported planning a $250,000 addition to its Baltimore plant.

Market Report on

SOAP AND DISINFECTANT CHEMICALS

(*As of September 8, 1934*)

NEW YORK—The market for soap and disinfectant chemicals was seasonally inactive this period, with buyers holding down purchases to keep in line with lowered production. Labor trouble closed one plant entirely and activity was curtailed in other sections in view of the rather substantial stocks of finished soap on hand. Changes in market prices were few and of little significance.

Alkalis

Buying slowed up in the alkali field this month, due principally to the strike in the textile trade which practically shut down the entire industry. Purchases by soap makers were also curtailed as production lagged. Uncertainty concerning the usual fall pickup in business was responsible for inactivity in other lines. Prices were unchanged, being firmly maintained in spite of the lowered call from buyers.

Coaltar Chemicals

In spite of general curtailment of activity in many consuming trades the price level of the coaltar market moved upward this period, due to leveling off of operating schedules at several producing plants.

Glycerin

The price situation in the glycerin market remained firm this period with no changes being reported. In some quarters buyers seemed not disposed to pay asked prices, but the outlook appears to be for higher rather than lower prices. The influence of the anti-freeze demand is already being felt and this may shortly become a more bullish factor as stocks for anti-freeze purposes are reported small.

Rosin

Rosin quotations were somewhat higher this period in spite of higher receipts and lessened demand. A series of conferences has recently been held by naval stores groups to endeavor to agree on some program of crop limitation for next season.

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The U. S. Department of Commerce has just published a compilation of statistics giving production, consumption, imports and exports of animal and vegetable fats and oils by quarters for the calendar years 1929 to 1933. Copies can be obtained from the U. S. Government Printing Office, Washington, at 5c. each.

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The index of emloyment in the soap industry registered 97.7 in July, 1934, as compared with 99.9 in June and 88.4 in July, 1933. The pay-roll index for the industry registered 84.3 in July, 1934, as compared with 86.0 in June and 74.3 in July, 1933.

Sumner W. Lothrop, first president and charter member of the Foragers of America, died, August 20, at his home in Orange, N. J.

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THE PRINCIPLES OF DOMESTIC AND INSTITUTIONAL LAUNDRYWORK, by Agnes Jackman and B. Rogers. 5¼ x 7½. 230 pages. $2.00. Publisher, Edward Arnold & Co., London. An elementary text on the theory and practice of laundering, covering laundering materials, equipment, processes, etc. Soap comes in for special attention, with a section devoted to varieties of soap, qualities, suitability of soaps for various purposes, synthetic soaps, etc. The composition and use of washing powders is also discussed.

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GERMICIDAL DETERGENTS

(*From Page 26*)

as into solid media. There is evidence in the literature, however, which indicates that the acid-fast bacteria are rather sensitive to certain soaps, as judged by animal inoculation.

Summary

IT HAS been found that some of the unsaturated soaps, particularly sodium oleate and sodium resinate, enhance the bactericidal efficiency of alkalies such as trisodium phosphate. A 2 per cent solution of trisodium phosphate containing from 0.1 to 0.2 per cent sodium resinate sterilizes a 24 hour culture of Staphylococcus aureus in a 5 minute contact period at 37.5°C. The mixture is also germicidal toward other pathogenic organisms, and appears to have a decided toxic action on the acid-fast Mycobacteria.

A new procedure in the testing of germicides has been introduced, in which plate counts serve as the criterion of germicidal efficiency, rather than growth or no growth in broth cultures. This overcomes, to a large degree, the effect of the error of random sampling.

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Editor, SOAP: —

We have read with considerable interest the first part of the article "Germicidal Detergents" by A. R. Cade and H. O. Halvorson in the August issue of "Soap." We wish to bring to your attention and to the attention of the trade the fact that we have a contract for the exclusive manufacture and sale of "Germicidal Detergents" under the Cade and Halvorson patent. This patent was granted March 14, 1933, the patent number is 1,901,434.

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Newark, N. J., Aug. 28, 1934. MILTON MEYER, *Secy.*

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Neatsfoot Oil	Rapeseed Oil (Undenatured)	Tallow	Trisodium Phosphate
Coconut Oil	Castor Oil	Red Oil	Caustic Potash
Cottonseed Oil	Sesame Oil	Soap Colors	Carbonate Potash
Palm Kernel Oil	Lard Oil	Chlorophyll	Bath Powder
Stearic Acid	Palm Oil	Soda Ash	Modified Soda
Oleo Stearine	Corn Oil	Sal Soda	Caustic Soda
Soya Bean Oil	Peanut Oil	Talc	Silicate of Soda
Palm Kernel Oil (English or German Denatured)	Grease (Animal)		Meta Silicate and Metso

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350 WEST 31st STREET, NEW YORK CITY

Perfuming Specialties for Soaps and Sanitary Products

Market Report on

ESSENTIAL OILS AND AROMATICS

(*As of September* 8, 1934)

NEW YORK—Mixed price movements featured the market for essential oils and aromatics this period, with price changes being rather more numerous than usual. Most of them were on the down side as sellers moved to attract business in an inactive market. Some of these reductions were made in spite of rather bullish reports from primary markets. Among the oils to be quoted lower this period were anise, boise de rose, cananga, geranium, lemongrass, peppermint and spearmint.

Anise Oil

In spite of rising replacement costs anise oil has been reduced moderately on spot due to competitive conditions. The current quotation is 42 to 47c. pound.

Bois De Rose

Brazilian oil was reduced in some quarters late this period so that the inside quotation is now $1.20 pound, ranging up to $1.40.

Cananga Oil

Cananga oil quotations were lower this period in spite of the fact that the oil is in low supply and some local dealers are not even able to quote. The slight reduction brought the price down to $1.85 for native oil.

Geranium Oil

Competitive conditions brought a reduction in the spot price of Algerian oil this period, which is now quoted at $5.50 to $7.25. Buyers are inactive due to substantial reserve stocks held.

Lemongrass Oil

This oil was five cents a pound lower this period on the prospect of receipt of a cargo of low priced oil. The current market is 80 to 90c. pound.

Peppermint Oil

Reports from the middle west indicated that production there would not be over 250,000 pounds this season, while the coast production, it is indicated, will not be over 75,000 pounds. Prices have eased off moderately with natural oil quoted at $3.35 to $3.70 per pound.

COUPON SORTERS UNDER SOAP CODE

Employees engaged at a soap factory office in counting and sorting soap coupons, are fully subject to the labor provisions of the Soap and Glycerine Code, and do not come under the retail code, according to an N.R.A. ruling. The premium department of the soap company cannot operate under the retail code, but must operate under the Soap and Glycerine Code. Minimum wages to be paid employees engaged in counting and sorting coupons are: (a) $12.00 per week, provided the number of messengers, junior clerks, and others doing a junior grade of clerical work does not exceed 5 per cent of the total number of office employees in any establishment; (b) and as to all such office employees in excess of such 5 per cent, $15.00 per week in any city over 500,000 population or $14.00 per week in any other part of the United States.

CLEANSERS UNDER SOAP CODE

Cleanser manufacturers are now officially a subdivision under the code of the soap and glycerin industry, according to an announcement on Sept. 5 from the NRA. The group includes all those who are engaged in the "manufacture of household cleanser and bulk cleanser containing soap and insoluble mineral or minerals as essential ingredients." All manufacturers whether selling in bulk or small packages are included. The inclusion of cleanser manufacturers under the soap code became effective Sept. 11. At the soap code hearing on Oct. 5, 1933, the cleanser manufacturers indicated that they intended to submit a supplementary code, but this plan was later abandoned and they decided to operate as a subdivision under the soap code. According to R. C. Edlund, executive secretary of the Code Authority, assessments against cleanser manufacturers will be only for the period beginning Sept. 11. For the quarter of the year the rate will only be 1/10 per mill per dollar or $10 for each $100,000 of cleanser sales.

CHINESE SOAP QUALITY IMPROVES

There has been a steady improvement in the quality of locally manufactured toilet soaps and other soaps in China, particularly in the Shanghai region, according to reports from that city. The sales of the local manufacturers in Shanghai are reported to be now three times the figures for imported soap products. There has been a sharp decline in the sale of Japanese soaps in China. The use of high-priced toilet products in China is mainly confined to foreigners and the wealthy Chinese. The decline of imports is not confined to Japanese products alone, for the value of British toilet products exported to Shanghai last year fell to under £10,000 ($50,000), less than one-third of the sum represented by American products and just over one-half the French figures.

Arthur Henriksen has resigned as vice-president of Norda Essential Oil & Chemical Co., New York. Mr. Henriksen has been with the company since its incorporation. Prior to that he had been connected with J. R. Watkins Co. and Palmolive Co.

for your soap products—

STAUFFER BRAND

Caustic Soda

"STAUFFER BRAND" Caustic Soda can be supplied either solid or liquid, in drums or tank cars. It is uniform, pure and worth while using in your soap products. Send your next Caustic Soda inquiry to us.

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PERFUME BASES for SOAPS

Jasmin	Chypre	Sweet Pea	Rose
Lilac	Gardenia	Bouquets	Lemon

Prices Range to Suit Your Requirements

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Whether you pay 75c or $10.00 per pound, we give the same careful consideration to your orders and always guarantee the quality of our products.

Let us help you with your odor and price problems as our services and samples are yours for the asking without cost to you.

BUDD AROMATIC CHEMICAL CO., INC.
667 WASHINGTON ST., NEW YORK
Essential Oils, Compound Specialties, Aromatic Chemicals

U. S. REPRESENTATIVES: N. V. POLAK & SCHWARZ'S ESSENCE-FABRIKEN

CURRENT PRICE QUOTATIONS

As of September 10, 1934

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	.08½	.10
Acid, Boric, bbls., 99½%	ton	95.00	100.00
Cresylic, 97½ dk., drums	gal.	—	.55
97-99%, pale, drums	gal.	—	.60
Oxalic, bbls	lb.	.11	.11¼
Adeps Lanae, hydrous, bbls	lb.	.14	.15
Anhydrous, bbls	lb.	.15	.16
Alcohol, Ethyl, U. S. P., bbls	gal.	2.45	2.69
Complete Denat., No. 5, drums., ex.	gal.	.34	.42
Alum. Potash lump	lb.	.03	.03¼
Ammonia Water, 260, drums, wks	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls	lb.	.08	.12½
Bleaching Powder, drums	100 lb.	1.75	2.35
Borax, pd., cryst., bbls., kegs	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
L. C. L.	lb.	.06	.08½
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.11	.11½
Creosote Oil	gal.	.11½	.12½
Feldspar (200 to 325 mesh)	ton	14.00	15.00
Formaldehyde, bbls	lb.	.06	.07
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.13½	.14½
Dynamite, drums	lb.	.13	.14
Saponification,drums	lb.	.09¾	.10
Soaps, Lye. drums	lb.	.08¾	.09
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.93	1.08
Naphthalene, ref. flakes, bbls	lb.	.06	.07¼
Nitrobenzene (Myrbane) drums	lb.	.09½	.11
Paradichlorbenzene, bbls., kegs	lb.	.16	.25
Paraformaldehyde, kegs	lb.	.38	.39
Petrolatum, bbls. (as to color)	lb.	.01⅞	.06¾
Phenol, (Carbolic Acid), drums	lb.	.14¼	.16
Pine Oil, bbls	gal.	.59	.65
Potash, Caustic, drums	lb.	.07⅛	.07½
Flake	lb.	.08	.08¼
Potassium Bichromate, casks	lb.	.08⅛	.08⅝
Pumice Stone, powd	100 lb.	2.50	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	5.35	5.50
Grade K to N	bbl.	5.60	5.90
Grade WG and X	bbl.	6.15	6.40
Wood	bbl.	4.30	5.85
Rotten Stone, pwd. bbls	lb.	.02½	.04½
Silica, Ref., floated	ton	18.00	22.00
Soap, Mottled	lb.	.04⅛	.04⅜
Olive Castile, bars	lb.	.09	.12
powder	lb.	.17	.22
Olive Oil Foot	lb.	.04½	.06
Powdered White, U. S. P.	lb.	.16	.20
Green, U. S. P.	lb.	.06½	.08
Tallow Chips	lb.	.06	.06½
Whale Oil, bbls	lb.	.05	.06
Soda Ash, cont., wks., bags, bbls.	100 lb.	1.23	1.50
Car lots, in bulk	100 lb.	—	1.05
Soda Caustic, cont., wks., sld	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal., bbls	100 lb.	1.10	1.35
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls	lb.	.07½	.09¼
Sodium Hydrosulphite, bbls	lb.	—	.22
Sodium Silicate, 40 deg., drum	100 lb.	—	.80
Drums, 60 deg. wks	100 lb.	—	1.65
In tanks, 15c. less per hundred, wks.			
Tar Acid Oils, 15-25%	gal.	.21	.25
Trisodium Phosphate, bags, bbls	lb.	.03	.0355
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls	lb.	.18	.19

Oils — Fats — Greases

Castor, No. 1, bbls	lb.	.10¼	.11
No. 3, bbls	lb.	.09¾	.10½
Coconut			
Manila, tanks, N. Y.	lb.	.02⅝	.02¾
Tanks, Pacific coast	lb.	.02⅜	.02½
Drums	lb.	.03⅝	.03¾
Cod, Newfound, bbls	gal.	.40	Nom.
Copra, bulk, coast	lb.	.0135	.0140
Corn, tanks, mills	lb.	.06½	.06⅝
Bbls., N. Y.	lb.	.07½	.07⅝
Cottonseed, crude, tanks, mill	lb.	.06⅛	.06¼
PSY	lb.	—	Nom.
Degras, Amer., bbls	lb.	.03	.03¾
English, bbls.	lb.	.03¾	.04½
German, bbls.	lb.	.03½	.04½
Neutral, bbls.	lb.	.09	.11
Greases, choice white, bbls., N. Y.	lb.	.04¾	.05½
Yellow	lb.	.04½	.04¾
House	lb.	.04½	.04¾
Lard, prime, steam, tierces	lb.	.08	.08¼
Compound tierces	lb.	.09	.09¾
Lard Oil,			
Extra, bbls.	lb.	—	.08
Extra, No. 1, bbls.	lb.	—	.07¾
No. 2, bbls.	lb.	—	.07
Linseed, raw, bbls., spot	lb.	.0950	.0990
Tanks, raw	lb.	—	.0890
Boiled, 5 bbls. lots	lb.	—	.1070
Menhaden, Crude, tanks, Balt.	gal.	.22	.25
Oleo Oil, No. 1, bbls., N. Y.	lb.	.09¾	Nom.
No. 2, bbls., N. Y.	lb.	.09¼	Nom.
Olive, denatured, bbls., N. Y.	gal.	.84	.86
Foots, bbls., N. Y.	lb.	.07¼	.07⅜
Palm	lb.	.03⅛	.03¼
Palm Kernel, casks, denatured	lb.	.03¼	Nom.
Peanut, domestic tanks	lb.	.06⅝	Nom.
Red Oil, distilled, bbls.	lb.	.07⅜	.08⅜
Saponified, bbls.	lb.	.07⅜	.08⅜
Tanks	lb.	—	.06½
Soya Bean, domestic tanks, N. Y.	lb.	—	.06½
Stearic Acid			
Double pressed	lb.	.09½	.10½
Triple pressed, bgs	lb.	.12¼	.13¼
Stearine, oleo, bbls.	lb.	.09	.09¼
Tallow, special, f.o.b. plant	lb.	—	.04¾
City, ex. loose, f.o.b. plant	lb.	—	.04⅞
Tallow, oils, acidless, tanks, N. Y.	lb.	—	.07
Bbls., c/l, N. Y.	lb.	—	.07½
Whale, crude	lb.	.03½	.04
refined	lb.	.06¾	.07

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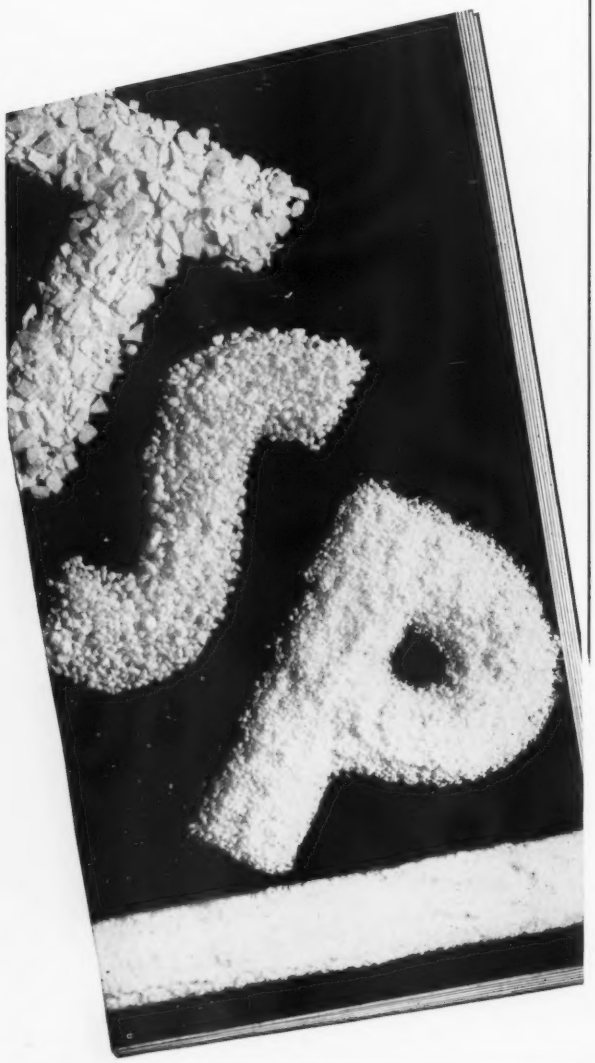

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Coco Oil—60%—Natural, Opal, Green

LIQUID SOAPS

Coconut ..... 10% to 45%
Olive Oil ..... 10% to 30%
Colored and Perfumed

SCRUBBING SOAPS

Pine, Sassafras, Plain

LIQUID SHAMPOOS

Coconut Oil .. 30% to 45%
Olive Oil 30%
Castile 30%

POWDERED and GRANULATED SOAPS

Castile, U. S. P.
Coco Castile 50-50
Pure Coconut

SOFT POTASH SOAPS

Light and Dark
U. S. P. 9th and 10th

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KRANICH SOAP CO.

54-60 RICHARDS ST. BROOKLYN, N.Y.

(*As of September* 10, 1934)

Essential Oils

Almond, Bitter, U. S. P.	lb.	$2.00	$2.50
Bitter, F. F. P. A.	lb.	2.25	2.75
Sweet, cans	lb.	.60	.65
Anise, cans, U. S. P.	lb.	.42	.47
Apricot, Kernel, cans	lb.	.26	.27
Bay tins		1.25	1.50
Bergamot, coppers	lb.	1.50	1.80
Artificial	lb.	1.00	1.30
Birch Tar, rect., tins	lb.	.70	.80
Crude, tins.	lb.	.13	.14
Bois de Rose, Brazilian	lb.	1.20	1.40
Cayenne	lb.	2.65	2.90
Cade, cans	lb.	.26	.30
Cajuput, native, tins	lb.	.50	.60
Calamus, tins	lb.	3.25	3.50
Camphor, Sassy, drums	lb.	—	.19
White, drums	lb.	—	.21
Cananga, native, tins	lb.	1.85	2.00
Rectified, tins	lb.	2.25	2.50
Caraway Seed	lb.	1.90	2.00
Cassia, Redistilled, U. S. P.	lb.	1.15	1.20
drums	lb.	—	1.10
Cedar Leaf, tins	lb.	.65	.70
Cedar Wood, light, drums	lb.	.25	.28
Citronella, Java, drums	lb.	.38	.43
Citronella, Ceylon, drums	lb.	.26	.27
Cloves, U. S. P., tins	lb.	.94	.95
Eucalyptus, Austl., U. S. P., cans	lb.	.27	.28
Fennel, U. S. P., tins	lb.	1.10	1.20
Geranium, African, cans	lb.	5.50	7.25
Bourbon, tins	lb.	5.50	7.00
Hemlock, tins	lb.	.70	.75
Lavender, U. S. P., tins	lb.	2.45	6.00
Spike. Spanish. cans	lb.	.95	1.00
Lemon, Ital., U. S. P.	lb.	1.00	1.25
Lemongrass, native, cans	lb.	.80	.90
Linaloe, Mex., cases	lb.	1.15	1.25
Nutmeg, U. S. P., tins	lb.	1.25	1.30
Orange, Sweet W. Ind., tins	lb.	1.50	1.75
Italian cop	lb.	1.45	2.30
Distilled	lb.	.65	.70
Origanum, cans, tech	lb.	.25	.50
Patchouli	lb.	2.75	3.00
Pennyroyal, dom	lb.	2.00	2.05
Imported	lb.	1.35	1.70
Peppermint, nat., cases	lb.	3.35	3.70
Redis., U. S. P., cases	lb.	3.60	4.00
Petit Grain, S. A. tins	lb.	1.10	1.15
Pine Needle, Siberian	lb.	.85	.90
Rose, Natural	oz.	5.50	18.00
Artificial	oz.	2.00	3.00
Rosemary, U. S. P., tins	lb.	.32	.38
Tech., lb. tins	lb.	.28	.30
Sandalwood, E. Ind., U. S. P.	lb.	5.75	6.00
Sassafras, U. S. P.	lb.	.75	1.00
Artificial	lb.	—	.40
Spearmint, red, U. S. P.	lb.	1.85	2.30
Thyme, red, U. S. P.	lb.	.50	.80
White, U. S. P.	lb.	.80	1.00
Vetivert, Bourbon	lb.	7.50	8.50
Java	lb.	16.00	20.00
Ylang Ylang, Bourbon	lb.	4.60	7.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.50	$2.25
Amyl Cinnamic Aldehyde	lb.	3.50	4.25
Anethol	lb.	1.00	1.10
Benzaldehyde, tech	lb.	.60	.65
U. S. P.	lb.	1.10	1.30
Benzyl, Acetate	lb.	.60	1.00
Alcohol	lb.	.75	1.15
Citral	lb.	1.90	2.20
Citronellal	lb.	2.25	2.50
Citronellol	lb.	2.55	3.00
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide	lb.	1.05	1.25
Eucalyptol, U. S. P.	lb.	.62	.65
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	1.25	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	3.00	3.50
Heliotropin	lb.	1.85	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.60	6.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	3.00	4.25
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.15	3.20
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	5.75	6.00
Ketone	lb.	6.25	6.50
Moskene	lb.	5.00	6.00
Xylene	lb.	2.00	2.50
Phenylacetaldehyde	lb.	4.00	6.50
Phenylacetic Acid, 1 lb., bot.	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.25	4.50
Rhodinol	lb.	5.75	8.00
Safrol	lb.	.45	.48
Terpineol, C. P., 1,000 lb. drs.	lb.	.33	.35
Cans	lb.	.36	.37
Terpinyl Acetate, 25 lb. cans	lb.	.80	.90
Thymol, U. S. P.	lb.	1.40	1.50
Vanillin, U. S. P.	lb.	4.50	5.75
Yara Yara	lb.	1.30	2.00

Pyrethrum Products

Insect powder, bbls.	lb.	.34	.37
Concentrated Extract			
5 to 1	gal.	2.05	2.10
15 to 1	gal.	5.75	6.00
20 to 1	gal.	7.80	7.85
30 to 1	gal.	11.55	11.60

Gums

Arabic, Amb. Sts.	lb.	.09	.09½
White, powdered	lb.	.13	.13½
Karaya, powdered No. 1	lb.	.08	.09
Tragacanth, Aleppo, No. 1	lb.	1.15	1.20
Sorts	lb.	.11	.12

Waxes

Bees, white	lb.	—	.33½
African, bgs	lb.	.21	.22
Refined, yel.	lb.	.25	.26
Candelilla, bgs	lb.	.13	.14
Carnauba, No. 1	lb.	.32	.33
No. 2, yel.	lb.	.31	.32
No. 3, chalky	lb.	.19	.21
Ceresin yellow	lb.	.36	.38
Paraffin, ref. 125-130	lb.	.03⅜	.04¼

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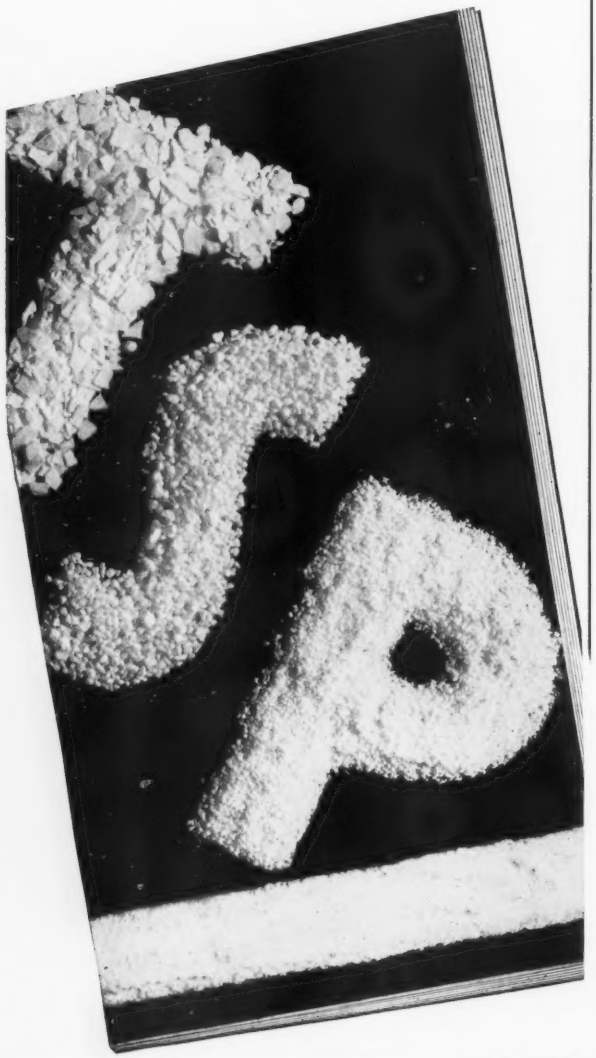

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Essential Oils

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Bitter, F. F. P. A.	lb.	2.25	2.75
Sweet, cans	lb.	.60	.65
Anise, cans, U. S. P.	lb.	.42	.47
Apricot, Kernel, cans	lb.	.26	.27
Bay tins		1.25	1.50
Bergamot, coppers	lb.	1.50	1.80
Artificial	lb.	1.00	1.30
Birch Tar, rect., tins	lb.	.70	.80
Crude, tins.	lb.	.13	.14
Bois de Rose, Brazilian	lb.	1.20	1.40
Cayenne	lb.	2.65	2.90
Cade, cans	lb.	.26	.30
Cajuput, native, tins	lb.	.50	.60
Calamus, tins	lb.	3.25	3.50
Camphor, Sassy, drums	lb.	—	.19
White, drums	lb.	—	.21
Cananga, native, tins	lb.	1.85	2.00
Rectified, tins	lb.	2.25	2.50
Caraway Seed	lb.	1.90	2.00
Cassia, Redistilled, U. S. P.	lb.	1.15	1.20
drums	lb.	—	1.10
Cedar Leaf, tins	lb.	.65	.70
Cedar Wood, light, drums	lb.	.25	.28
Citronella, Java, drums	lb.	.38	.43
Citronella, Ceylon, drums	lb.	.26	.27
Cloves, U. S. P., tins	lb.	.94	.95
Eucalyptus, Austl., U. S. P., cans	lb.	.27	.28
Fennel, U. S. P., tins	lb.	1.10	1.20
Geranium, African, cans	lb.	5.50	7.25
Bourbon, tins	lb.	5.50	7.00
Hemlock, tins	lb.	.70	.75
Lavender, U. S. P., tins	lb.	2.45	6.00
Spike. Spanish. cans	lb.	.95	1.00
Lemon, Ital., U. S. P.	lb.	1.00	1.25
Lemongrass, native, cans	lb.	.80	.90
Linaloe, Mex., cases	lb.	1.15	1.25
Nutmeg, U. S. P., tins	lb.	1.25	1.30
Orange, Sweet W. Ind., tins	lb.	1.50	1.75
Italian cop	lb.	1.45	2.30
Distilled	lb.	.65	.70
Origanum, cans, tech	lb.	.25	.50
Patchouli	lb.	2.75	3.00
Pennyroyal, dom	lb.	2.00	2.05
Imported	lb.	1.35	1.70
Peppermint, nat., cases	lb.	3.35	3.70
Redis., U. S. P., cases	lb.	.3.60	4.00
Petit Grain, S. A. tins	lb.	1.10	1.15
Pine Needle, Siberian	lb.	.85	.90
Rose, Natural	oz.	5.50	18.00
Artificial	oz.	2.00	3.00
Rosemary, U. S. P., tins	lb.	.32	.38
Tech., lb. tins	lb.	.28	.30
Sandalwood, E. Ind., U. S. P.	lb.	5.75	6.00
Sassafras, U. S. P.	lb.	.75	1.00
Artificial	lb.	—	.40
Spearmint, red, U. S. P.	lb.	1.85	2.30
Thyme, red, U. S. P.	lb.	.50	.80
White, U. S. P.	lb.	.80	1.00
Vetivert, Bourbon	lb.	7.50	8.50
Java	lb.	16.00	20.00
Ylang Ylang, Bourbon	lb.	4.60	7.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.50	$2.25
Amyl Cinnamic Aldehyde	lb.	3.50	4.25
Anethol	lb.	1.00	1.10
Benzaldehyde, tech	lb.	.60	.65
U. S. P.	lb.	1.10	1.30
Benzyl, Acetate	lb.	.60	1.00
Alcohol	lb.	.75	1.15
Citral	lb.	1.90	2.20
Citronellal	lb.	2.25	2.50
Citronellol	lb.	2.55	3.00
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide	lb.	1.05	1.25
Eucalyptol, U. S. P.	lb.	.62	.65
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	1.25	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	3.00	3.50
Heliotropin	lb.	1.85	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.60	6.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	3.00	4.25
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.15	3.20
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	5.75	6.00
Ketone	lb.	6.25	6.50
Moskene	lb.	5.00	6.00
Xylene	lb.	2.00	2.50
Phenylacetaldehyde	lb.	4.00	6.50
Phenylacetic Acid, 1 lb., bot.	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.25	4.50
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No. 3, chalky	lb.	.19	.21
Ceresin yellow	lb.	.36	.38
Paraffin, ref. 125-130	lb.	.03⅜	.04¼

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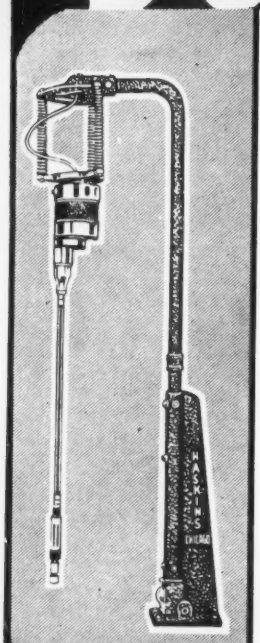

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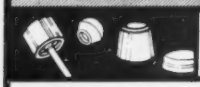
3 MINUTE CHANGE-OVERS FROM ONE SIZE OR STYLE TO ANOTHER . . .



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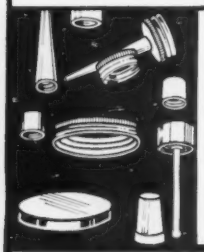

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FACTS ABOUT GLYCERIN

(From Page 34)

maximum world recovery of glycerin, which will in due time automatically become a world surplus for export to the United States as the world's most highly diversified and consequently best stabilized market. To maintain reasonable values for glycerin, the soap manufacturing industry must have the ability to absorb the rest of the world's exportable surplus when and if it appears. It should not be necessary to remind our producers that we have had quite recently, and may again have, supplies of glycerin that temporarily are not needed.

Developments in the organic chemical field have been so rapid in the past few years that while some of these developments have been very helpful to the sale of glycerin others have resulted in substitution of cheaper ingredients and the entire picture must be closely followed to keep glycerin moving into every possible outlet.

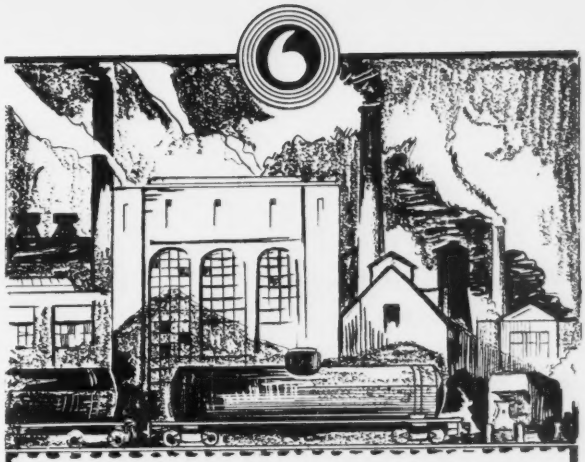
In addition to this phase of research work, there is, the reverse situation of supplying regular customers at reasonable prices during periods of unexpected and abnormal demand. Every consuming outlet for glycerin represents investment in selling or advertising expense or both and it generally costs more to get a lost customer back than it does to get him the first time. Sharp fluctuations in price are the chief cause of lost customers for glycerin. The ideal situation would be to have sufficient stocks at all times to take care of the unexpected demand, but this is not always practically possible.

The total United States production of ethylene glycol is being absorbed without material effect on glycerin values. Fermentation production of glycerin may serve as a barrier to any extreme advance. Both of these products have helped to keep glycerin at a reasonable level, but have not been entirely effective under some of the conditions of the past few years.

The Future

IT is believed that with improved recovery methods, and in the absence of such illogical proposals as prohibitive duties on high glycerin-yielding fats and contemporary admission of deglycerinated fats duty free, the United States might produce ample glycerin for its own present or increased diversified consumption. However, to protect properly United States producers against imports from other countries where uses are less diversified and against possible surpluses here if any outlets are lost, research for new outlets must be continued and perhaps expanded.

Glycerin values today on the gold standard are still at an all time low if we except the currency transition period of 1933. Therefore, for the present it is reasonable to expect a steady maintenance of values with a continued broad movement into all consuming outlets in fairly direct ratio to general business activity.



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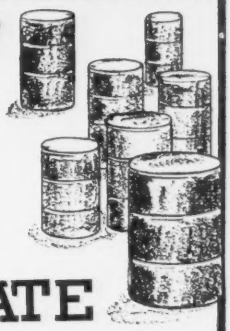

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PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries.*

Drum Handling

Testing, Reconditioning, Storing and Filling of Drums in the Modern Soap and Wax Plant

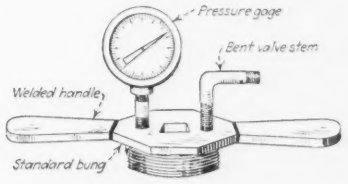
By LOUIS E. BRUNNER

Supt., Continental Carnavar Corp.

NOW that the age of narrower profits is with us, plant management has been forced to look to every available means to cut down losses and reduce waste. Returnable drums and barrels present one of the problems today which will bear looking into by the superintendent of many an otherwise efficient plant. While it is true that many companies have abandoned altogether the return of drums and other containers, some concerns add to their returned-drum problem by clinging to antiquated methods of reconditioning these returned empty packages. It is essential to keep the cost of reconditioning down, but sight must not be lost of the fact that at the prices at which many soaps, waxes, floor products, and other specialties sell, the purchaser is entitled to a clean, neat package, which must be easy to handle and use.

After a drum has been out over the road and returned by the customer, the first step to be taken is in regard to its appearance. If it is badly dented, it should be abandoned without further ado. If its external appearance is such that it is satisfactory for reshipment, it should first of all be tested for leaks before anything else is done. There is not much use trying to recondition a leaky drum. It has been my experience, when the drum is not tested before this occurs, that the cost of cleaning and repainting will often be wasted, for many such drums will be found to have developed leaks, usually a fine crack around the rim or in the welded seams. The crack probably results from rough handling in transit and will generally be so small that it is not detected until the drum has been refilled, ready for another trip.

In the accompanying sketch I have shown a simple and inexpensive home-made device through the use of which air pressure can be put on the drum. It consists

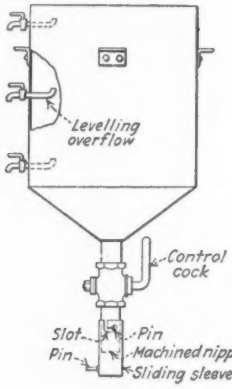


of a standard 1½ in. bung to which a pair of handles is welded. Two ¼ in. holes are drilled and tapped into the bung, one for a pressure gauge and the other for an ordinary bent-stem tire inflating valve. Using this device before a drum is cleaned and repainted, we put it under 10 lb. air pressure. If it will hold this pressure for some time we are reasonably certain that the drum is worth reconditioning.

Liquid soap and scrubbing preparation containers—in fact, any drum containing any soap product,—are usually easy to clean by rinsing with water, while the cleaning of those for liquid wax, of the water as well as of the spirit type, sometimes presents a problem. Spirit wax drums may be cleaned with any of the cheaper solvents such as the thinners offered by numerous oil concerns. It is advisable to put these drums on a tumbler machine and use chains inside with the solvent. After a good cleaning outside in order to remove labels, spilled wax, etc. the drum is ready for repainting which is usually done by spraying. In the case of water waxes, the products often have a tendency

to build up solids on any projecting part of the container, and such accumulations must be removed for it has a bad effect on new material. This can be done with live steam.

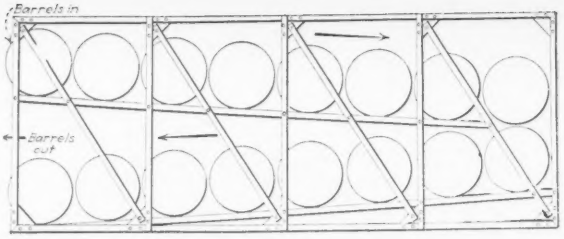
IN MANY small chemical plants, measuring and filling methods are likely to be somewhat crude and not a little inaccurate. Any device which will eliminate, at least to a considerable extent, the human element in the measuring is likely to result in improvement. The



simple filling device illustrated herewith, designed by the writer, has proved to be entirely satisfactory in this regard and the three of them now operating in our plant have given no trouble whatsoever. The sketch illustrates construction of the filler. A container, such as an old 55-gal. drum, is equipped with a conical bottom and a series of drain cocks for measurement by overflowing the material to the cock level. In the tank illustrated these are for volume of 55, 30, and 15 gal. The cocks are screwed to short sections of pipe and welded into the side of the container at approximately the proper intervals for the various sizes of can or drum to be filled. Accurate adjustment of the volume at each of the cocks may be made after the filler is completed, by bending the pipes within the drum so that the turned-up inner ends are at the proper level.

A discharge pipe welded to the conical bottom carries a control cock, to the lower end of which is screwed a nipple machined so as to have a good sliding fit within a sleeve. A bayonet slot in the sleeve and a pin welded to the nipple support the sleeve between fillings, so that the container to be filled may be moved under the filler pipe. Then the sleeve is dropped into the container opening and supported by a second pin welded to the sleeve itself. The sleeve obviously prevents a lot of unnecessary splashing. It should be about ¼ in. smaller than the container opening to permit the escape of air.

The filler is not only accurate in its operation but it is cheap to build. It occupies little space for its installation, as it can be hung from the ceiling, and it requires no skilled operator. It is only necessary that the latter leave open the cock corresponding to the



volume of liquid needed when filling the apparatus. The overflow automatically attends to the accuracy.

Where drums are reconditioned and it is desired to store them empty, the type of rack shown in the accompanying illustration assures the older drums being used first. It is equally valuable for the storage of new drums, and also for filled drums of various materials. It is merely a rack with a sloping track on which the drums are introduced at the top and taken out at the bottom as needed.

———♦———

Soap as such can never become rancid. Rancidity can occur only when free fat or free fatty acid is present in the soap. A sample of chemically pure sodium stearate which had been kept since 1899 was examined. It had a rancid odor and gave a positive Kreis reaction. On analysis 10.15 per cent of free fatty acid was found to be present, occurring from hydrolytic cleavage. The other hydrolysis product, sodium hydroxide, reacts to form sodium carbonate and bicarbonate. When the free fatty acid was isolated, the odor of rancidity was found to accompany it, leaving an odorless residue. A large number of toilet and curd soaps are examined similarly. No case of rancidity existed except where either free fat or free fatty acid was present. One sample which was rancid but which appeared to contain excess alkali showed by Bergell's new test that free fatty acid was present. G. Knigge. *Seifensieder-Ztg.* **61,** 571-2 (1934).

———♦———

Oxidative rancidity of oils is believed to be developed wholly or in part by contact with air, light, heat, moisture, metals and possibly enzymes. That light is of great importance is proved by experiments showing that oil-bearing substances which were protected from light by metal foil or black or green paper, did not develop rancidity as did similar samples that were not protected in this way. Mayne R. Coe., *Cereal Chem.* **11,** 241-58 (1934).

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Capillarity of oils as measured by the rise or spread of fatty oils in filter paper, is inversely proportional to the mean molecular weight, and bears no relation to the composition, that is, to the presence of hydrocarbons, etc., or to the refractive index of the oil. Mineral oils behave similarly, but in the 6 examples examined, the refractive index was roughly proportional to molecular weight. H. Marcelet. *Chim. et Ind.* **31,** Spec. No. 916-31 (1934).

SALT IN SOAP

If the salt content of soap is too high, the product tends to be brittle and to crack. This is particularly true when the greater part of the fat used is hard fat. The soap maker should remember that less salt is required to salt out hard-fat soap than soft-fat soap. A determination of the melting point of a fat mixture tells little about the individual fats present. The ideal in the salting out process is complete salting out with as low a salt concentration as possible. Soap stock containing 0.2 to 0.3 per cent of salt is not difficult to obtain. This corresponds to not over 0.4 per cent of salt in the finished product.

The Bennet method for determining salt in soap is not very accurate in its original form. This consists of precipitating soap with magnesium and titrating sodium chloride in the mixture with silver nitrate solution, using potassium chromate as an indicator. The method can be made accurate by filtering off insoluble magnesium compounds before titrating. An alternate method is to heat the mixture containing magnesium compounds to boiling for 10 minutes. The precipitate collects on the walls of the vessel and titration can be carried out without filtering. J. Davidsohn. *Seifensieder-Ztg.* **61,** 512-3 (1934).

—— ♦ ——

Aniline dyes are most suitable for coloring toilet soap because of their easy solubility in water and the variety of colors that can be obtained with them. A disadvantage is that they fade on long storage. The following combinations are suggested:

	grams
Chypre	
Egg yellow	1.50
Blue	1.50
Tougere	
Egg yellow	2.50
Blue	0.50
Rose	
Egg yellow	0.10
Rhodamine	0.25
Red	0.35
Lanoline	
Lemon yellow	8.00
Egg yellow	0.80
Brown	
Brown	5.00
Green	0.25

The dyes are dissolved in a little water containing soap chips. The above amounts are used with 100 kg. of soap stock. It is not advisable to make up more dye solution than required for immediate needs. Carl Dittler, Jr., *Seifensieder-Ztg.* **61,** 553 (1934).

—— ♦ ——

Sweating of soap is due in part to the nature of the mixed materials now used in soap making, but principally to pressing and sacking the soap while still warm. Morath. *Seifensieder-Ztg.* **61,** 553 (1934).

SUPERFATTING SOAP

Use of a superfatting agent undoubtedly improves the texture of soap, making it more plastic and easily worked. It also tends to neutralize any alkali which might be present, and thus remove harshness which might irritate sensitive skins. A good mixture for this purpose consists of equal parts of stearine and white petroleum jelly, or 2 parts stearine, 1 part lanolin, and 1 part white petroleum jelly. These are melted, mixed, allowed to cool, and 1 to 1½ pound added per 100 pounds of chips added with the other ingredients at the mixing stage. H. P. Martin. *Soap, Perfumery and Cosmetics Trade Review* **7,** No. 7, 17 (1934).

—— ♦ ——

The factors governing the number of extractors in a battery for extracting oil from seeds, the number of distilling outfits and of condensers are:—the oil content of the material to be extracted, and the time required for extraction. With sunflower seed and soy bean, most of the oil is extracted in half to two hours. Extraction takes place in two steps. First, the solvent passes through the freshly charged extractor and comes in direct contact with the oil liberated from the seed cells. The second step corresponds to diffusion and osmosis of the solvent which must pass through the cell walls to reach the oil within. A. Slashchev. *Chimie et Industrie* **29,** 1406.

—— ♦ ——

The Finkener method for determining the solidifying point of fats gives good results with fatty acids, but gives poorly defined end points with hardened oils or with fats containing 3 per cent of fatty acids. To obtain correct results by this method, transfer the filtered fat to a Finkener flask at a temperature of 20° C., above the expected titer. When the temperature falls no more than 0.2° C. in 2 minutes, remove the flask from the box, shake vigorously 8 or 10 times, and replace in the box. If the temperature does not rise within 10 minutes, repeat the shaking. The temperature should rise 3 to 5° C. The highest temperature is reported as the solidifying point. The shaking is necessary in order to avoid irregular results. J. Lund. *Fettchem. Umschau.* **41,** 86-90 (1934).

—— ♦ ——

Adulteration of lard and beef fat by margarine and hardened fats may be detected by converting 5 grams of fat into the ethyl esters. These are fractionated by distillation under reduced pressure. The difference between the saponification values of the residue and of the first fraction is determined. The difference of the ester fractions from margarine and hardened whale oil is greater than is the case of lard and beef fat. The residue contains fatty acids of higher, and the first fraction, of lower molecular weight. The method may be used to determine the percentage of these constituents. J. Peltzer. *Z. Unters. Lebensm.* **67,** 529-34 (1934).

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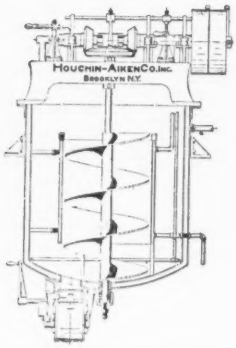

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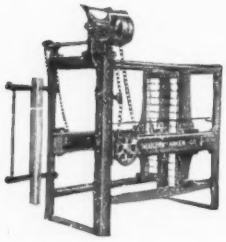

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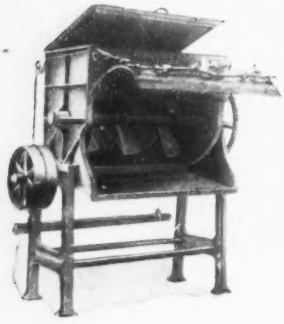

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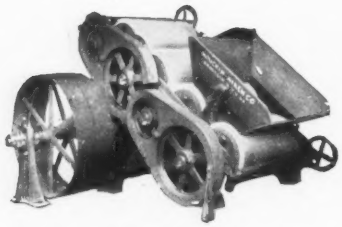

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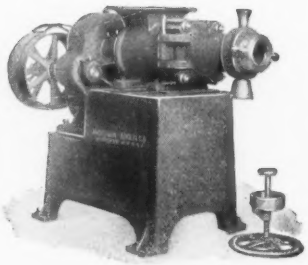

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SOAP FOR THE TROPICS

A suitable charge for soap to be used in the tropics consists of tallow or palm oil and up to 20 per cent of rosin. The fat charge is saponified as usual. The finished product should not contain more than 0.2 per cent of free alkali. Let the soap settle in the pan for 2 or 3 days until the temperature falls to 150° F. The amount of liquorings added should not exceed 40 per cent. Hada ash should not be used. Sodium silicate is mixed with the soap in the crutcher and the mixture transferred to frames to cool. After 3 or 4 days the soap is cut into pieces and matured in a warm atmosphere or heated to 100 to 120° F. until a thick surface skin is obtained. This retards the loss of moisture, thus reducing shrinkage and the tendency to effloresce. *Oil and Colour Trades J.*, July 6, 1934.

———♦———

Peanut oils differ in their properties according to the variety of the seed. A new variety of Chinese peanut has appeared on the market. The kernels have a flat flavor, are relatively low in nitrogen, and are difficult to press. Three samples of kernels contained from 42.1 to 43.6 per cent of oil. Cold-pressed oils had the following properties: d^{20} 0.914-0.9146, n^{20} 1.4710, acid value 1-3, saponification value 194.5-196.5, iodine value 97-98.5, unsaponifiable matter 0.36 per cent. Peanut kernels from the Argentine contained 43.5 per cent of oil. Samples obtained by cold pressing, and by extraction with petroleum solvent had, respectively, d^{20} 0.9187, 0.9171; n^{20} 1.4717, 1.4718; acid value 0.7, 1.9; and iodine value 103.101. L. Margaillon et al. *Chim. et Ind.* **31,** 896-8 (1934).

———♦———

Tests to measure the amount of "fast yellow" dye removed from activated carbon by soap solution show that the removal of dye increases with the soap concentration and with the time of shaking. The largest amount of dye is removed by castor-oil soap, the smallest amount by rosin soap. This result does not agree with other tests for detergent power. Tests on the amount of the same dye taken up from soap solution by active carbon show that the least dye is absorbed from the most concentrated soap solution, and that carbon adsorbs dye in the first few moments of contact, but gives it up again on prolonged shaking. The presence of soda ash diminishes the amount of dye adsorbed from olein soap solution, leaves the amount adsorbed unchanged from naphthenic acid soap solution, and increases the amount of dye adsorbed from rosin soap solution. B. Tyutyunnilxov and S. Pleshkova. *Allgem. Oel-und Fett-Ztg.* **3,** 59-63 (1934).

———♦———

A good neutral kerosene is an excellent substitute for ether as a diluent in acid value determinations of oils and fats. Figures obtained with kerosene tend to be a little higher than with ether, e.g. 0.05 to 0.1 on acid values of 2 to 11. F. Wittka, *Allgem. Vel-und Fett-Ztg.* **31,** 197-8 (1934).

USING SOAP WASTE

Old and damaged cakes of soap and waste from the driers, should never be milled and mixed with fresh soap. It is safer to return waste of this kind to the soap pan and to re-boil it, even though this involves the loss of some of the ingredients. Color may give rise to trouble in toilet soap base. Where this is the case, the waste should be added to a soap of lower grade. Scrap from the plodder and from the cutting of the bars should be used immediately, but it is safer to mix it off gradually and send it through the mills again with subsequent batches of chips. H. P. Martin. *Soap, Perfumery and Cosmetics Trade Review*, **7,** No. 7, 11 (1934).

———♦———

Hydrolytic equilibrium in a 5 per cent soap solution was studied as follows: The acid number of the original fatty acid mixture was 224. After treatment with sulfuric acid and boiling under a reflux condenser to establish equilibrium, the mixture was extracted with ether, the ether evaporated off, and the residue extracted with acetone. The first portion of fatty acid so obtained had an acid number of 211, the second portion 219, the third portion 231, and the fourth portion 260. The author's conclusion is that in dilute soap solutions, high molecular weight fatty acids repress the properties of low molecular weight fatty acids. C. Bergell. *Seifensieder-Ztg.* **61,** 532-3 (1934).

———♦———

Use of East Indian sandalwood oil in soap perfumery has been increasing during the past few years. One reason is that the composition is so constant, and the odor so definitely due to santalol, that constant results are obtained with different batches. The oil contains from 92 to 95 per cent of santalol, so that results are nearly as controllable as if santalol itself were being used. Sandalwood oil is of value not only for its specific odor and as a modifier in most soaps desired to have an Oriental odor, but also in almost every type of heavy odor, as a fixative. *Oil and Colour Trades J.*, July 6, 1934.

———♦———

Triethanolamine soap can be made with any high molecular weight fatty acid of the aliphatic series. The longer the chain of carbon atoms the more effective is the soap formed. Such soaps are excellent emulsifying agents. In order that the emulsion, once formed, shall be stable, the water used must be absolutely free from electrolytes. *The Manufacturing Chemist* **5,** 265-6 (1934).

———♦———

Treatment of soy bean oil with silica gel reduces the protein content of the oil, and removes coloring matter. The effectiveness of the gel increases with dilution of the acid used in precipitating it. A small proportion of protein matter appears to be in true solution in the oil and is not removed by adsorption. R. Neu. *Tettchem. Umschau.* **41,** 70-1 (1934).

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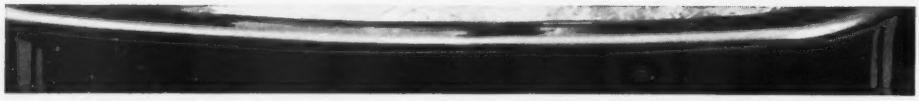

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ON PRODUCTS AND PROCESSES

Soaps for use with dry-cleaning solvents, especially carbon tetrachloride or trichlorethylene, consist of a fatty acid soap with a content of a polyglycol, with or without a chlorinated aliphatic hydrocarbon. An illustration is the following:—14.2 grams of sodium hydroxide is dissolved in 25 cc. of water and stirred into 100 grams of oleic acid and 100 cc. of trichlorethylene. Next 70 grams of triethylene glycol or 50 cc. of diethylene glycol is added. The product is dissolved in trichlorethylene. Roessler and Hasslacher Chemical Company, British Patent No. 407,088.

—— ♦ ——

Soap containing fat which has been subjected to extreme bleaching by oxidizing agents does not keep as well as soap stock made from fats of ordinary purity. Stock prepared by emulsification methods with indirect heating keeps better than stock prepared by the boiling process. A recommended procedure is to saponify first the fats which require boiling, then to add the more easily saponified fats and continue by the method of emulsification at a lower temperature. Oeulus. *Seifensieder-Ztg.* **61,** 533-4 (1934).

—— ♦ ——

Soap-like materials which are unaffected by calcium and magnesium, and which will lather with sea water, are formed by mixing salts of the reaction products of sulfuric acid and saturated aliphatic alcohols containing more than 8 carbon atoms, with similar salts of higher unsaturated fatty alcohols. Or the alcohols may be mixed first and then allowed to react with sulfuric acid. Ordinary soaps may be added up to 20 per cent, together with disinfectants and scents. An example is a mixture of 26.5 parts of oleic sulfate, 26.5 parts of cetyl or octadecyl sulfate, 40 parts of lauric sulfate and 7 parts of curd soap. Deutsche Hydrieriverke A.-G. British Patent No. 406,565.

—— ♦ ——

Aqueous solutions of chlorinated stearic acid soaps have a lower surface tension than those of plain stearic acid soaps. Chlorination increases the wetting power of the soap. Yoshio Tanaka et. al. *J. Soc. Chem. Ind., Japan* **37,** suppl. binding 197-8 (1934).

—— ♦ ——

Some free acids are found in the unsaponified matter of soapstock. The presence of these free acids is attributed to the hydrolytic action of the soap in the original soapstock on its neutral oil, forming mono- and diglycerides. When these free acids are subtracted from the total acids found by the usual titrations of the acidified and boiled soapstock, the discrepancies between laboratory tests and actual factory losses largely disappear. E. I. Better and J. Sinskin. *Allgem. Vel-und Fett-Ztg.* **31,** 193-6 (1934).

—— ♦ ——

In bleaching soap by treatment in alkaline solution with sodium hypochlorite, caustic soda or an alkaline salt should be added during the process in order to maintain the original concentration of free alkali. Odorless products are obtained in this way. To avoid discoloration of the soap during boiling after bleaching, the alkali content of the bleached soap should be reduced until the pH value is less than 13. I. G. Farbenind. A.-G. German Patent No. 597,079.

—— ♦ ——

Mixtures of the sodium soaps of naphthenic, palmitic and stearic acids in 0.25 to 1 per cent solutions resemble sodium oleate solution in peptizing and suspending power toward manganese dioxide. Peptizing power falls with rising temperature and increasing concentration. At 60 to 65° C. the peptizing power of the saturated soaps is much greater than that of soaps of naphthenic or oleic acid, and is reduced by their admixture. Sodium carbonate (1:1 or 1:2 of soap), reduces the peptizing power of soaps of naphthenic acid, alone or admixed with sodium oleate. At 20 to 25° C., admixture of rosin soap to such mixtures moderates the unfavorable action of sodium carbonate. B. Tiutiunnikov and A. Sobolj. *Allgem. Vel-und Fett-Ztg.* **31,** 189-93 (1934).

—— ♦ ——

Soap can be decorated with pictorial matter, advertisements, etc. by drying the cake superficially, placing cellophane, transparent gummed paper or parchment on the dried area, and then drying the cake in a heated chamber. The transparent application is coated with a layer of paraffin wax. This may be made smooth by treating with a wax solvent such as xylene. John B. McDougall. British Patent No. 407,938.

—— ♦ ——

Potassium soap is made by mixing fatty acids with a small amount of xylene or similar material, and saponifying with a concentrated aqueous solution of caustic potash. Such a product contains from 25 to 30 per cent of water but no free fatty acids or alkali. Miyoshi Sekken Kogyo G. K., Japanese Patent No. 101,263.

—— ♦ ——

Fish oil is deodorized by heating at 270-300° C. *in vacuo*, cooling and mixing with cotton cloth, pulp, or sand, and then spreading in a thin layer in a warm atmosphere. Keiji Tamachi and Nenosuke Bakamoto. Japanese Patent No. 101,432.

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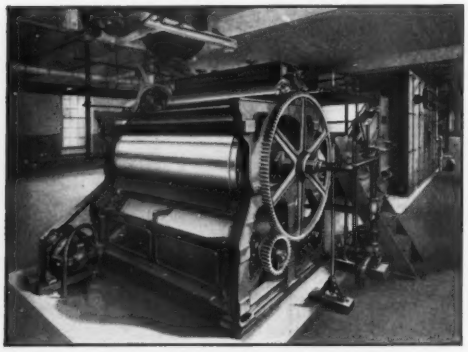

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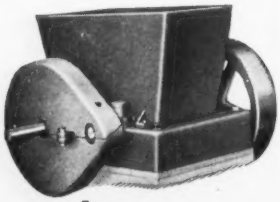

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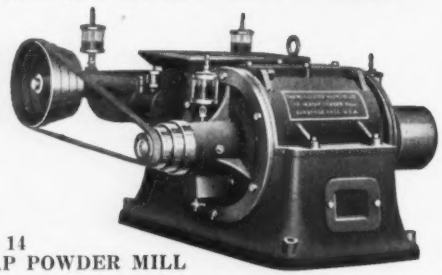

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	per cent
Stearine	36.40
Potash Lye (76.5° Tw.)	19.10
Molten Toilet Base	34.40
Coconut oil soap (C.P.)	4.04
Glycerin	6.06
	100.00

The potash should be of electrolytic quality. The molten toilet base has a composition of 85 per cent of refined tallow and 15 per cent of the best quality of coconut oil. Any good base may be substituted for this. The coconut oil soap is made into a cold process soap by saponifying with potash. The latter is finished with a fatty acid content of about 50 per cent.

Stearine is melted and added to the potash at about 65° C. with thorough mixing. Molten toilet soap and coconut-oil soap are then added. Glycerin is mixed in and further operations are carried out as for toilet soap. Soap made by this method is said to be smoother and softer than that made by other methods. On aging it does not become dry and brittle. T. E. Nesbit. *Soap, Perfumery and Cosmetics Trade Review* **7,** No. 7. 10 (1934).

PURIFICATION OF CASTOR OIL

Castor oil can be refined directly with caustic soda. According to a method in use in Russia, no special difficulty is encountered by the undesirable formation of stable emulsions. The presence of proteins usually causes the formation of emulsions which are difficult to break, but they do not interfere under the new conditions. Neutralization occurs at 30-35° C., with the addition of a small excess of 10-12° Be caustic soda. This is introduced with stirring. The temperature is then brought to 65° C. for ½ to ¾ hour. Proteins are coagulated, the oil is allowed to cool and the soapstock precipitates. With very impure oils, it may be advisable to add salt. The oil is then transferred to a washing apparatus, where it is washed with water at 75-80° C. The washing is repeated until the wash water is no longer alkaline to phenolphthalein. The oil is then dried in a partial vacuum at a temperature of 70-75° C. It is bleached in a vacuum apparatus and pumped into a reservoir from there it goes to the filter presses:

Results for crude castor oil containing 2.5 per cent acid are as follows:

Yield of refined oil	92.1%
Loss in soapstock	5.0
Loss in bleaching process	2.1
Loss in washing (by difference)	0.8

Castor oil purified by this method is light yellow and completely transparent. It does not become turbid when stored in a cold place. The method is particularly useful for oils from the second pressing. Robert Heublum. *Seifensieder Ztg.* **61,** 362-4 (1934).

IONIZED OILS

Ionized oils are obtained by a secret process developed by E. V. Hayes—Gratze and manufactured by H.-S. Products, Ltd. They vary in physical character from clear liquids to semi-solid pastes. All are readily miscible with water and exhibit marked emulsifying and detergent properties, combined with penetrating power. Oils to which the process has been applied include ground-nut, soy-bean, sperm-whale, and palm-kernel oils, as well as mutton tallow.

Although raw wool scouring with ionized oil has not yet reached an economic stage, technical advantages in improved color and handle and avoidance of felting, have been shown in a number of trials. The treated oils are safer from the "oxidized oil" point of view than high-grade olive oil. Color bleeding and staining of whites is avoided almost completely in scouring with these oils. A difficulty in applying ionized oil to worsted combing and spinning is that those in the trade insist on continuing the same conditions and procedure as has been working out for olive oil. The prospects for ionized oils in the worsted industry thus depend partly on the extent to which their processing advantages are found to warrant the modified technique best suited to their application. —A. —T. King and —E. V. Hayes—Gratze. *Chem. and Ind.* 177-8T (1934).

The fine grade of silica black is 6.4 per cent more efficient than diatomite as a support for nickel in a 5 hour hydrogenation of cottonseed oil at atmospheric pressure. With both catalyst carriers of the same degree of fineness, and containing about the same amount of nickel, the silica black holds about 30 per cent more nickel in the reduced form. Hydrogenated oils filter faster and clearer from the silica black support than from diatomite. Loring R. Williams and C. A. Jacobson. *Ind. Eng. Chem.* **26,** 800-2 (1934).

Textile soap should not contain highly oxidizable oils or rosin, particularly when used for scouring wool. Wool absorbs soap strongly so that it is extremely difficult to remove the last traces from the fibers. If the material mentioned or if free fatty acid is present in the soap, the wool is apt to develop an objectionable odor on standing. *Oil and Colour Trades J.*, July 6, 1934.

When sulfated fatty alcohols are used to facilitate uniform dyeing and at the same time to soften fibers, evaluation is not based altogether on direct analysis. Differences in tinctorial effects due to sodium sulfate, carbon tetrachloride, chloroform and water, are also used. A 65 per cent sulfated alcohol should not contain more than 1 per cent of sodium sulfate. L. Bounet. *Rev. gen. mat. color,* **38,** 246-7 (1934).

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From the Food Research Institute of Stanford University, California, comes the newest contribution to the literature on edible oils and fats, dealing particularly with the origin, history and development of cooking fats, vegetable shortening, compounds, etc. "The American Vegetable-Shortening Industry" by G. M. Weber and C. L. Alsberg, the latter director and the former a previous associate of the Food Research Institute, comprises 359 pages including a rather extensive appendix of tables, glossary, trade mark names, and various excerpts from reports, regulations, etc. The book traces the development of the American edible fats industry, that is the history of lard, tallow, cotton oil, compounds, shortening, and the influence of technical developments on the industry. The subject is considered throughout mostly from the economic angle, with attention to technological developments mostly by reference and in a 42-page section of the appendix. The main work is divided to cover the history of the industry prior to 1890, then from 1890 to the World War, and last the developments since the War, plus a study of production, consumption and prices. The book is well written—above all interestingly written—and presents an exceedingly clear picture of the developments in edible fats. It is to be recommended to all who have any interest in the field as another valuable contribution to the oil-fat literature.—Ed.

◆

Manufacturers' Practical Recipes, by Jameson. 7¾ x 9¾. 625 pages. Publisher, D. W. Earle, London, England. The third edition of the well-known British formula book first published in 1897. Many of the formulas are taken bodily from the first edition, but the authors have also added considerable new material. Special chapters deal with soaps, toilet preparations, disinfectants, insecticides, livestock specialties, weed killers, sheep dips, polishes, boiler compounds, etc.

◆

The Chemistry of Petroleum Derivatives, by Carleton Ellis. 6½ x 9¼. 1300 pages. Published by Chemical Catalog Co., New York. $18.00. Several chapters of this lengthy work are of particular interest to soap manufacturers, dealing as they do with such topics as the production of synthetic fats by oxidation of paraffin wax, the potential use of such fats in soap making and the use of mineral oil sulfonates as detergents. Little has been published on these subjects and consequently even the few pages in Mr. Ellis' work devoted to them will interest readers in the soap industry.

◆

To make a micro-determination of unsaponifiable matter, saponify 2-3 mg. of fat with sodium hydroxide in alcohol and toluene. Add 1 cc. of a solution saturated with barium hydroxide and barium chloride, to form insoluble barium soaps. Extracts with light petroleum solvent, evaporate off the solvent, and weigh the residue. G. Gorbach and A. Sablatnog. *Mikrochem.* **14,** 256-62 (1934).

ACETYL AND HYDROXYL NUMBERS

Micro method for the determination of acetyl and hydroxyl numbers of fatty acids is as follows:—boil about 0.5 gram of fat with at least three times that amount of hydrochloric acid for 9 hours under a reflux condenser in an atmosphere of nitrogen. Cool, make slightly alkaline with 60 per cent potassium hydroxide solution, cool again, and precipitate the soluble soaps with lime water. Filter off the calcium soaps, suspend the precipitate in water, and liberate fatty acids with hydrochloric acid. Warm the mixture for a short time on the water bath, to secure complete decomposition of the soaps. Cool and extract with petroleum ether in a separatory funnel. Distil off the petroleum ether and dry the residue at 60° C.

Boil this mixture of fatty acids in an atmosphere of nitrogen under a reflux, with absolutely pure acetic anhydride. Extract in a small separatory funnel with water until the wash water is completely neutral. Extract the acetylated fatty acids with petroleum ether, transfer to flat dishes and evaporate at about 70° C.

Place 0.2-0.3 gram of carefully weighed substance in a 10 cc. flask with a ground-in reflux condenser and boil for 2 hours in a stream of nitrogen with 4 cc. of 0.5 *N* alcoholic potassium hydroxide solution. Transfer the contents quantitatively to a 10 cc. volumetric flask and dilute to volume. Distil 3 aliquots in a Friedrich apparatus on a boiling water bath with 25 cc. each of 25 per cent toluenesulfonic acid. Remove the sulfurous acid which distils over, by adding starch and 0.01 *N* iodine. Add to the distilled acetic acid potassium iodate and potassium iodide. Titrate liberated iodine with 0.01 *N* sodium thiosulfate solution. Otto Furth, Hans Kaunitz and Minna Stein. *Biochem. Z.* **268,** 189-20 (1934).

◆

An emulsifying and washing agent is obtained by treating the fatty alcohol mixture resulting from the reduction of esters of palm-nut and coconut oil fatty acids, with glycerol monochlorohydrin. The resulting monoglycerol ether is treated with chlor-acetyl chloride or with phenoxyacetic acid chloride. The product is sulfonated with sodium sulfite or with sulfuric acid. J. R. Geigy A.-G. Swiss Patents No. 162,732 and 162,733, dated October 2, 1933. Later patents related to these are Swiss Patents 165,385 to 165,402 inclusive.

◆

Turtle oil will find some use in toilet soaps, although it is too expensive to form any great proportion of the soap stock. Like lanoline, the oil is said to be readily absorbed by the skin. It is described as being rich in vitamins, but little scientific work has been published on this point. At ordinary temperatures the oil is a soft yellow fat, has a saponification value of 210, a titre of 28-29° C., and contains less than 1 per cent of unsaponifiable matter. The oil has a slightly fishy odor and would need to be carefully refined before use in toilet soap. *Perfumery and Essential Oil Rec.* **25,** 230-1 (1934).

For the

"RANK AND VILE"

Fuld's Deodorant Blocks, Disinfectants, Liquid Oil Soaps and Liquid Deodorants know no party lines. They're for the "rank and vile"—no matter what rank or how vile.

Get in line with the masses. A vote for Fuld's is a vote for cleaner buildings and cleaner profits.

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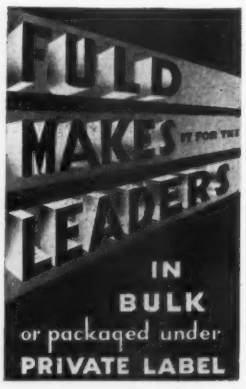

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A Section of "SOAP" Dealing with

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Powco Basic Extracts are free from foreign "chemical" odors, thus reducing your perfuming problem and perfuming cost. Check this by comparing *Powco Odorless Extract* with any so-called "odorless" extract of other manufacture.

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Style and Beauty Build Sales

TOO OFTEN, a highly satisfactory product slumbers its life away on the dealer's shelves for lack of a package which properly merchandises its contents.

It may be that the container is unsuited to the product. It may lack even the primary elements of display—good design, appropriate colors, proper lettering. It may be inconvenient, awkward to handle or open. It may fail to give adequate protection.

For 29 years Continental's Development Department has enjoyed singular success in modernizing containers—giving them sales appeal—suiting them to the product, its use and distribution.

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PARATINTS

When you use PARATINTS your operating *time* is cut in half . . . your operating *cost* is cut in half—and you have the satisfaction of more uniform color . . . more lasting perfume.

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ANNOUNCING MGK'S PYROCIDE

EVERY market for raw materials is subject to a certain amount of fluctuation. In cases where the raw material is in the nature of a crop, fluctuations are even greater, for the supply depends on such factors as weather conditions, the skill of individual growers, plant diseases, and insect depredations. In the case of pyrethrum flowers, all these things tend to affect the size of the crop. Furthermore uncertainty is caused regarding it because the crop is raised in remote countries. This has lead to many exaggerated reports, bits of information that are not authentic, and just plain gossip. All of these things affect the prices of pyrethrum flowers and cause them to fluctuate in a way that makes buying and selling a distinctly speculative venture.

After many years of experience in this market, the McLaughlin Gormley King Company uses a method of minimizing these risks that is common in many other industries. It is a method that is not only difficult for manufacturers of sprays to duplicate, but in many ways it would not be practical or good business for them to do so. For instance, foreign exchange is a most difficult problem for buyers who are not constantly engaged in studying it. The McLaughlin Gormley King Company are buyers of pyrethrum throughout the year, BUT they have the facilities and equipment to take pyrethrum flowers and convert them into a standardized product, Pyrocide 20, which retains its strength indefinitely and consequently is not subject to the same variations as flowers. This, of course, removes much of the speculative risk and makes it possible for them to take advantage of a favorable market.

Just how does this benefit you? In reality you benefit no matter which way the market moves. If McLaughlin Gormley King Company have bought pyrethrum, and if their average cost is higher than the market, competitors are willing to sell at the market, so the price of Pyrocide 20 must come down at least to the market.

UNIFORM KILLING POWER

PRICE POLICY ON 20 . . . .

If the price goes up it is more profitable for McLaughlin Gormley King to sell more Pyrocide 20 at a profit on their average cost than to sell less at a greater profit. McLaughlin Gormley King Company records show that its average cost of pyrethrum flowers is lower than the market at least eighty percent of the time.

When you buy Pyrocide 20 you not only buy a standardized product, but the price you pay is fair. Of course, the price of Pyrocide 20 varies to some extent as the average cost fluctuates, but you will note that the price of flowers fluctuates far more widely than Pyrocide 20. A manufacturer of sprays able to use only a limited amount of pyrethrum flowers cannot afford to enter so speculative a market, convert the flowers, and then take the risks of future variations in price and possible loss in strength.

At the present time McLaughlin Gormley King Company's average cost is about two cents per pound (equivalent to forty cents a gallon on Pyrocide 20) below present market prices. No new flowers will come into the market until August and September of 1935. There was no carry-over of the 1933 crop whatever. McLaughlin Gormley King Company feels confident that present contract prices will be low for the 1935 season.

Pyrocide 20 is shipped in steel drums containing 15, 30, and 53 gallons from warehouse stocks in New York, Los Angeles, Minneapolis, and several foreign cities. We also supply pyrethrum flowers of known pyrethrin content in whole, ground, or powdered form.

McLAUGHLIN GORMLEY KING COMPANY
MINNEAPOLIS, MINNESOTA

PYROCIDE 20
STANDARDIZED EXTRACT OF PYRETHRUM FLOWERS

Can you supply

Bulk or Private Brand

SOAPS — SOAP BASE — DISINFECTANTS CLEANSERS — POLISHES — HOUSEHOLD INSECTICIDES, ETC.?

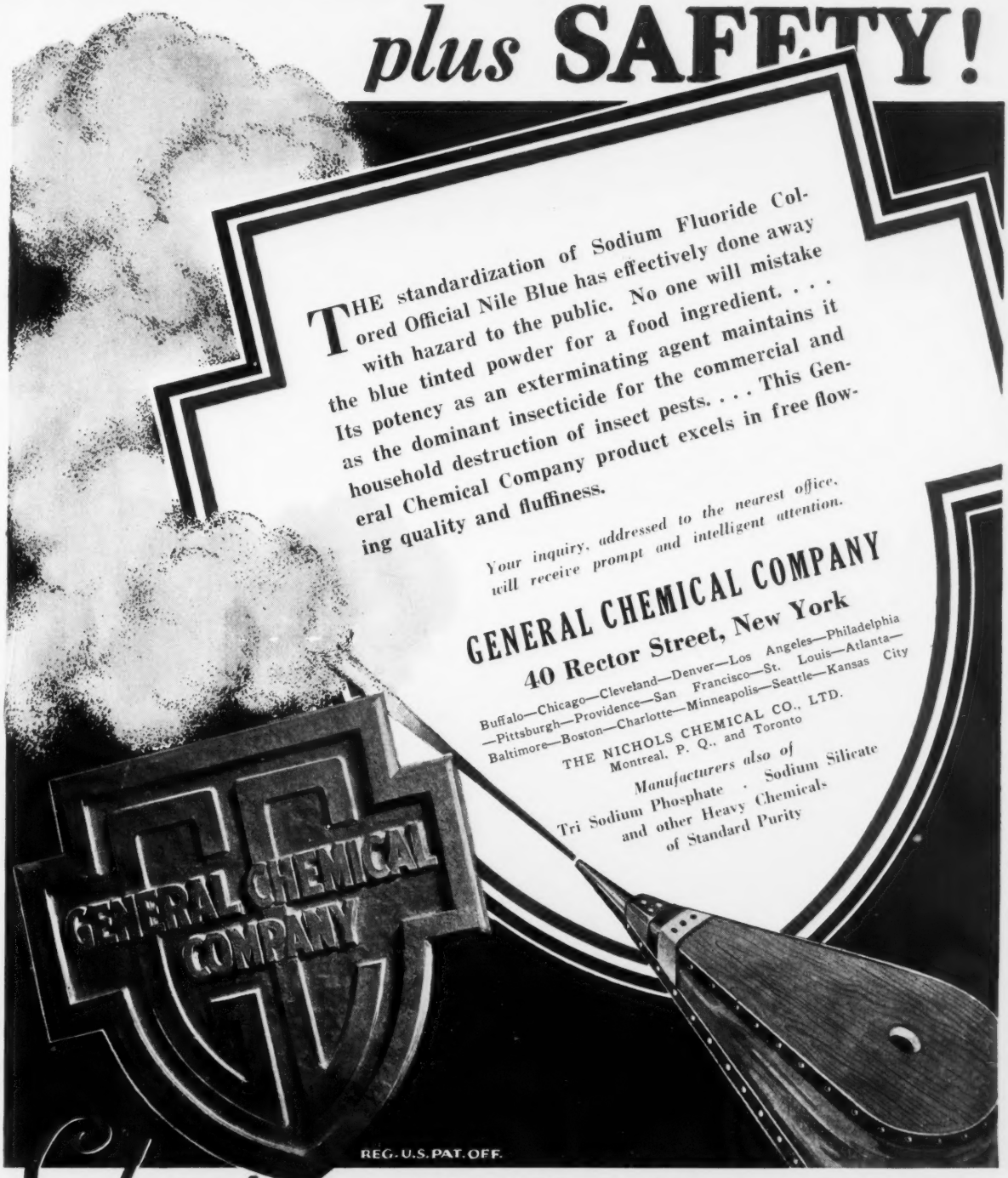
THERE is a real market among the readers of SOAP for all kinds of bulk and private label soaps, liquid soaps, disinfectants, deodorants, cleaning preparations, polishes, fly sprays, insecticides, etc.

MANY companies are not in a position to manufacture each and every product which goes to make up their complete line. Products not manufactured are, quite naturally, bought in the trade. Then, there are other manufacturers looking to expand their lines without increasing their manufacturing facilities. In addition, there is a considerable market for products of this type among sanitary supply houses. Are you in a position to handle this kind of business in your specialties?

IF YOU do or can manufacture any of these products in a large way and desire to dispose of a portion of your output to be sold to other manufacturers and distributors, to be marketed under private brand or for repacking, it will pay you to apprise the trade of this fact through the advertising pages of SOAP. Ask any advertiser of bulk or private brand products about results.

Write to the Advertising Department of SOAP, 136 Liberty St., New York, for further information.

Effective Extermination *plus* SAFETY!



THE standardization of Sodium Fluoride Colored Official Nile Blue has effectively done away with hazard to the public. No one will mistake the blue tinted powder for a food ingredient. . . . Its potency as an exterminating agent maintains it as the dominant insecticide for the commercial and household destruction of insect pests. . . . This General Chemical Company product excels in free flowing quality and fluffiness.

Your inquiry, addressed to the nearest office, will receive prompt and intelligent attention.

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THE NICHOLS CHEMICAL CO., LTD.
Montreal, P. Q., and Toronto

Manufacturers also of
Tri Sodium Phosphate · Sodium Silicate
and other Heavy Chemicals
of Standard Purity

Colored OFFICIAL NILE BLUE SODIUM FLUORIDE

"And as for the package, gentlemen, we can leave that up to—

Owens-Illinois"

It's easy to choose the right container when you consult with Owens-Illinois—the OnIzed line of modern stock-mold glass containers for proprietaries and pharmaceuticals is complete.

● **The many manufacturers who refer their packaging problems to Owens-Illinois do so because they are assured of handsome, modern, sales-impelling containers that stand up better in production. They know that long association with the marketing of many kinds of glass packed merchandise has given Owens-Illinois a thorough understanding of the buying habits of the American public. They recognize, too, the economy that lies in the complete service which Owens-Illinois provides...a service that extends from complete package design with label and closure suggestions to the actual manufacturing of shipping containers. Every aspect of your container problem is in the same competent hands when it rests with Owens-Illinois. A wide selection of stock-mold shapes, styles and sizes are always available. Inquiries invited. Owens-Illinois Glass Company, Toledo.**

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STAINLESS CATTLE SPRAY

A light colored liquid for spraying cattle to rid them of annoying flies and insects. Contains the active principle of pyrethrum. Will not stain, blister or burn, and has no disagreeable odor. A popular product with farmers and dairymen. Supplied in bulk to the distributing trade only.

PES-TOX

An efficient liquid household insecticide of the pyrethrum type, pleasantly scented. Surpasses in effectiveness the standard of the National Association of Insecticide and Disinfectant Manufacturers. Each lot carefully controlled by the Peet-Grady method. Supplied in bulk for distributors to resell under their own trade-names. Also suppliers of pyrethrum concentrate.

PINE OIL DISINFECTANTS

made from pure steam-distilled pine oil, and agreeable in odor and dilute with water to form rich, milk-white emulsions.

HIPINE, made according to the formula of the Hygienic Laboratory has a minimum phenol coefficient of four.

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CLEARPINE is a specially refined product, very light in color, and has a minimum phenol coefficient of four.

All are high-grade products, reasonably priced. Every lot chemically controlled and standardized. Supplied only in bulk to the distributing trade for resale under their own names and labels.

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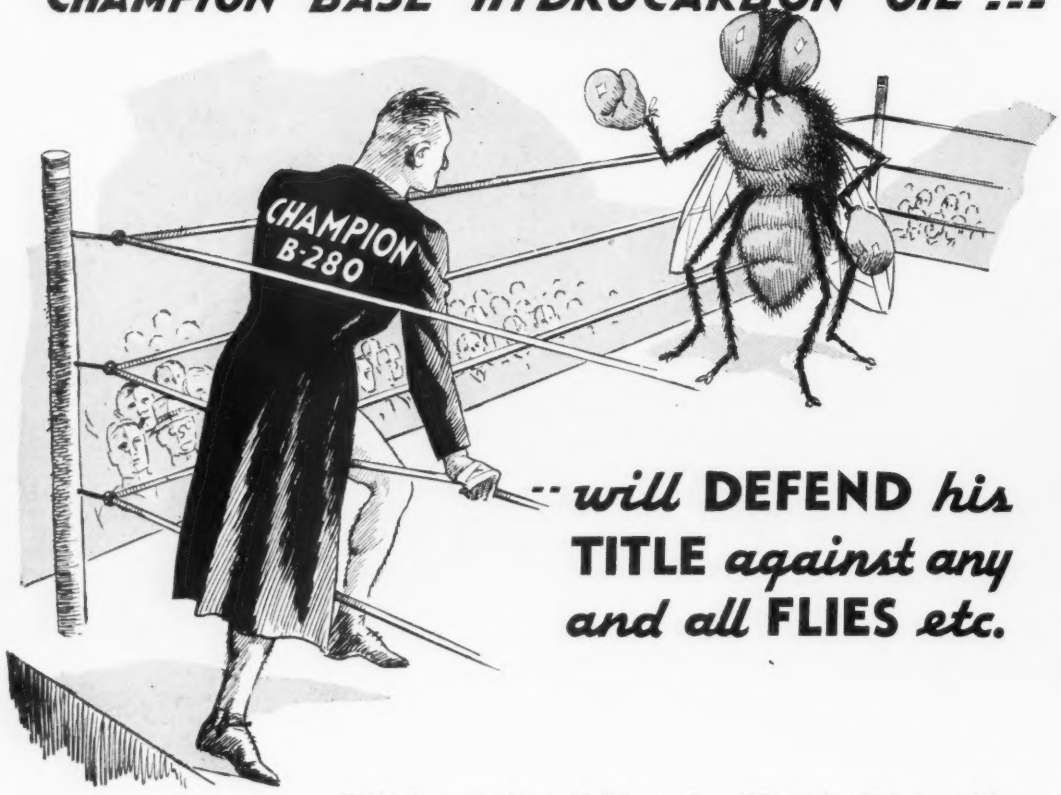
The NEW KILLER -- B-280
CHAMPION BASE HYDROCARBON OIL ---



-- will DEFEND his TITLE against any and all FLIES etc.

Notice the remarkable odor before and after.

Notice to Manufacturers: We manufacture Base Hydrocarbon Oil only. We are not manufacturers of fly sprays.

B-280 is a product of Research. (When in Chicago visit our Research Laboratories at 3921 E. Ravenswood Avenue—15 minutes from the "Loop") (4500 square feet of floor space devoted to Petroleum Research for Industries).

Ask the Cleaning Industry about "STOD-SOL"; the Rubber Industry about "RUB-SOL" or "PETROBENZOL"; the Lacquer Industry about "TROLUOIL"; the Varnish Industry about "APCOTHINNER," they are all Internationally known "Industrial Naphthas" manufactured by this company. We now enter your Industry and offer "B-280" for your approval.

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BRANCHES IN ALL PRINCIPAL CITIES

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They thoroughly perfume and color Deodorizing Blocks and Crystals in one single operation.

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Oriental O. D.-Green ..... @ $1.75 lb.
Pine Needles-Amber ..... @ 1.75 lb.
Lilac-Purple ..... @ 1.75 lb.
Orange Flower-Amber ..... @ 2.75 lb.
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Formaromes

Aquaromes

(water-soluble perfume oils)
For theatre sprays and for liquid soaps and shampoos.
(will NOT cloud your soap)

Specify for what purpose you want to use them, and the proper samples will be sent to you.

Price range from $1.50 to $6.00 per lb. We also manufacture a series of Aquaromes producing a milky solution and especially designed for Formaldehyde sprays.

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For over a quarter
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MEMBER
NATIONAL INSECTICIDE AND DISINFECTANT MFRS. INC. INC. 1914

SANITARY PRODUCTS

A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

EDITORIAL

IN SOME quarters of the disinfectant and sanitary products industry, we note a tendency to abandon the amicable attitude toward competitors which has been much in evidence so far this year. Some rather vicious price cutting and a recurrence of the old attitude,—". . . we can stand it as long as they can,"—are noted. Suspicion and distrust which were dispelled to a remarkable degree as a result of more or less frequent contacts among manufacturers at code and association meetings, seem to be more prominent. Perhaps that is accounted for by the fact that there is less business, competition is keener, and lost orders are more frequent. At any rate, to get out the price knife at the first provocation is the sure way to cut profits for everybody. Prices cut in anger do the cutter and everybody else harm, and they do not make the chiseler behave. Make sure of your facts before you cut to "meet" competition. Buyers have been using the story of a lower price from the other fellow ever since the Cæsars were in their cradles.

—♦—

FROM the angle of the manufacturer selling small packages of liquid household insecticides, the 1934 season which is just coming to a close, has like its predecessors, 1932 and 1933, been a poor one. The anticipation for greatly improved business this year was realized to only a small degree considering the trade as a whole. On the other hand, the sale of fly sprays in larger units, that is from gallon cans up to large drums, for use by factories and institutions, has held up quite well and in some quarters shown a good increase. Scattered reports on special insecticides such as bed bug liquids, roach powders and pastes, and others, indicate that volume has been about normal with these products apparently getting away from a seasonal character. In the case of stock sprays, reports show a steadily increasing interest and demand on the whole from year to year.

It is in the small packages of household spray where the problem faces, not a few manufacturers, but the entire industry. It is a problem which must and can be solved if the industry will attack it as a unit and not as individual concerns. And it should receive immediate attention before plans for the 1935 season are given even preliminary thought. Some outstanding factor among the manufacturers should take the lead in solving the problem now.

—♦—

A CAUSTIC, but withal logical comment comes to us from a New England manufacturer who in our opinion has been given to rather clear thinking. In discussing the new and drastic legislation of the New Deal, he says: "When the Government demonstrates that it can operate its own business efficiently, then I will believe that it is qualified to tell me how to run my business."

National Association of Insecticide *and* Disinfectant Manufacturers

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MEMBERSHIP

Active—Open to manufacturers and wholesale distributors of disinfectants, germicides, deodorants, insecticides, liquid soaps, polishes, and allied products. Dues—$75.00 per year.

Associate—Open to firms supplying raw materials, containers, equipment, etc., to the membership. Dues—$50.00 per year.

For further details, communicate with

NATIONAL ASSOCIATION OF INSECTICIDE & DISINFECTANT MANUFACTURERS

John H. Wright, Secretary

CHRYSLER BUILDING **NEW YORK**

Notes of the Trade

West Disinfecting Co., L. I. City, N. Y., has revised its capital set-up, changing its maximum authorized capital stock from $2,500,000 to 450,000 shares of no par common stock.

Clifton Chemical Co., New York, has recently mailed a folder to the trade describing its "Fragrantaire" deodorizing blocks and wall containers.

Simon S. Selig, The Selig Co., Atlanta, writes from Paris where he is spending a short vacation. Mr. Selig planned to visit Vichy, France, for a few weeks and to return to United States in September.

Clorox Chemical Co., Oakland, Cal., reports net income for the year ended June 30 of $281,685, equal to $2.48 a share on 113,756 no par shares. This compares with $227,184, or $2 a share, the year previous.

Mr. and Mrs. Henry A. Nelson celebrated their sixteenth wedding anniversary on Aug. 19 with a party at their home in Cleveland. Mr. Nelson is vice-president of the Chemical Supply Co., Cleveland.

International Metal Polish Co., Indianapolis, manufacturers of the Blue Ribbon line of metal polishes, have announced that they are now producing a complete line of liquid and paste waxes for the janitor supply, drug and hardware jobbing trades.

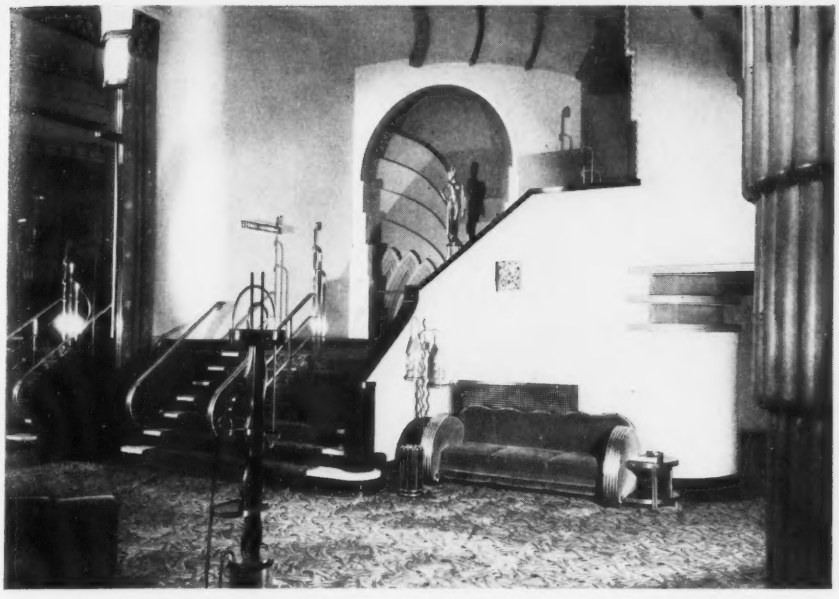
The Food & Drug Administration has announced changes in the personnel of its New York and Baltimore offices. Joseph Calloway, Jr., chief of the New York station, will go to Baltimore in the same capacity, and Daniel W. Walsh, chief of the Baltimore station, will assume charge in New York.

Merck & Co., Rahway, N. J., has awarded a contract for the construction of a new plant unit covering 8,000 square feet of ground. Two new warehouses are also to be built.

A new insecticide is made by heating a mixture of machine oil, sulfur, pine resin, soap, pyrethrum and eucalyptus oil. Kyuzaburo Mori. Japanese Patent No. 101,075.

T and T Chemical Co., Ogden, Utah, is manufacturing T and T roach powder and exterminator.

New York Society of Exterminators and Fumigators will hold a quarterly meeting Thursday, September 20th.



The beautiful modernistic lobby of the Casino Theatre in New York.

The Theatre As a Consumer of Sanitary Products

THE theatres of the country as a group bulk large in the consumption of sanitary products. On the whole the sanitary condition of the average theatre is considerably better than that of most public buildings, railroad stations, schools, and other places frequented by large numbers of people. The underlying reason for this is perhaps the fact that people go to the theatre for pleasure while they are present in other public structures usually by reason of necessity. If the average theatre were not kept reasonably clean and sanitary, particularly the larger theatres and moving picture places of the cities, the tendency would be naturally to drive people away. With the building during recent years of the tremendous "movie palaces," so much larger and seating so many more people than was ever thought of some years ago, the sanitary problem in each case is increased proportionately—likewise, the potential consumption of sanitary products. The type and equipment of these newer buildings also means greater care and cost in sanitary upkeep.

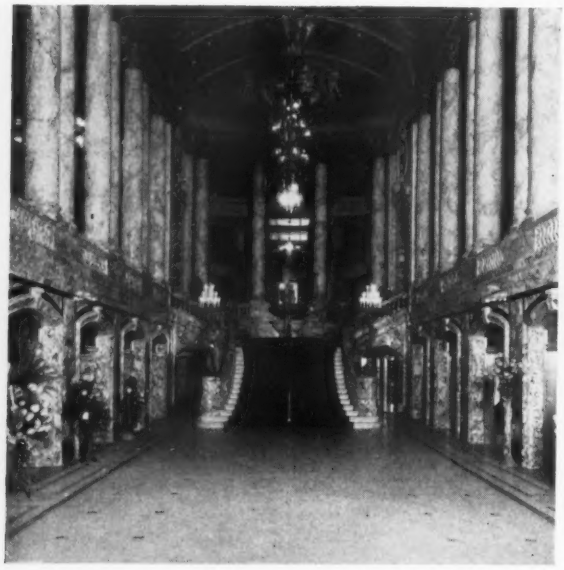
Throughout the United States and Canada are thousands of theatres of all kinds, used for all purposes, located in all types of communities from the richest to the poorest, some of them perhaps fifty years old with equipment in keeping, and others new and bright with the latest in equipment. Although their sanitary problems vary, they all have them in one form or another. The products used vary, of course, with the type of theatre. In general, however, they fall into four main classes—soaps and cleansers, floor maintenance materials, deodorants and disinfectants, and insecticides. The fact that the theatre is a very material consumer of insecticides may appear unusual, but it is nevertheless a fact. The bed-bug problem in even the better class of houses is frequently serious. There are also other insect infestations reported, chiefly moths and roaches.

Although soaps and cleansers are not generally considered in the groups of sanitary products as they are commonly known in the trade, they nevertheless are consumed in very considerable quantities and play an important part in the business of the supply houses. For tile lobbies, lavatory floors, etc., mild abrasive scouring powders, liquid scrub soaps and ordinary soap powders are used. For marble work, white wood work, and washable wall surfaces, oil soaps are used, soft potash soaps of linseed, corn or soya bean oils. Soaps for lavatories seem to be almost exclusively of the liquid variety in recent years. Apparently this has been found

to be the best practical solution of the wash room soap problem. Bar soap, even the type attached to a chain, has been driven almost completely out of the public lavatory by the petty thief. Irrespective of the size of the theatre, locality or the class of patrons, bar soap has been found to disappear about as rapidly as it is put out for use.

In the general class of cleaning materials, fall those dry cleaning and spotting agents, mostly carbon tetrachloride, ethylene dichloride, naphtha, and other solvent mixtures which are used on seats, carpets, draperies, etc., for removal of grease and similar stains. One of the largest uses of this type of solvent cleaner in the theatre is for the removal of chewing gum from beneath seats and from carpets and floors. Chewing gum being a mixture of chicle and other gums is readily soluble in these liquids. Where naphtha is used, the reason is usually to cut the cost. Because of the danger of fire, naphtha is seldom used alone but usually in combination with carbon tetrachloride. Seventy per cent carbon tetrachloride is required for safety against fire. Most of the better products are carbon tetrachloride or ethylene dichloride, alone or in combination, suitably perfumed. A product which has attracted some attention of late as the base of chewing gum removers is orthodichlorbenzene, the liquid cousin of paradichlorbenzene. According to reports, this liquid is somewhat cheaper than carbon tetrachloride and is equally effective for the purpose.

FLOOR maintenance materials comprise the next group for consideration. For tile, concrete, wood floors, mention has already been made of the detergents used. For linoleum, rubber, and composition floorings, greater care is of course necessary in cleansing. Many a good floor has been wrecked by improper recommendations by the supply house, or by somebody offering an "all-purpose" cleanser, or by the porter using a strong abrasive or solvent compound simply because he happened to have it on hand. Liquid scrub soaps are the products to be recommended—soaps which are not too harsh or with too much free alkali as is the case with many of the soap powders.



The spacious lobby in tile and marble of the Paramount Theatre, New York, presents a large-size problem in care and cleanliness.

In considering the maintenance of any floor in the average theatre, the heavy traffic which it encounters is an important factor. The products used for preserving and protecting the surfaces must be designed and used accordingly. Chief among these are perhaps the wax products for linoleum, rubber and wood floorings. The water-emulsion floor waxes are especially designed for those surfaces which cannot stand the action of a powerful solvent. Of course, they are also suitable for wood or other floorings where a wax coating is desired. They are of the self-polishing type. The regular solvent wax polishes where used require the usual buffing with machines, as is quite well known. In considering the use of a floor wax in a theatre, it is very evidently not wise to sell a wax with a low percentage of carnauba and other wax content in order to meet or beat a price. Where such a product might work fairly well in ordinary office or home traffic, it would not stand up where the traffic is heavy. For theatre use, waxes high in carnauba, giving hard finishes are essential if the user is to be satisfied.

THE deodorant problem in the theatre is the same as in any place where large groups of people congregate. There is the general deodorizing and ventilating of the theatre itself, and also the washrooms and lavatories. All sorts of devices and materials have been used for theatre toilets and urinals, but the combination of cleanliness, para blocks and an exhaust fan seem to comprise the most successful system. Toilet equipment which is not cleaned and scoured once or twice a day, cannot be kept odorless no matter what kind of deodorants are used. The perfume of the deodorizing blocks used is also a factor in the apparent "freshness" of the air in lavatories, odors such as mint, pine, thyme being preferred to sweeter bouquets and spicy odors. The bouquet type, not too powerful, in ladies' rest rooms are less objectionable than in men's toilets.

In the theatre itself, regular daily deodorizing and perfuming is coming more and more into use. The removal of the odor left behind by several hundred up to several thousand people who have been seated in a warm place for several hours, is always a problem to the theatre management. Where the new modern ventilating systems are in use, the constant change of air is probably the greatest aid in deodorization. Where there is no ventilating system, or even when there is a system and the temperature is high, other means for removing odors and covering them are essential. Airing out the place after the last performance and prior to opening up for

the day is of course a necessity. The use of theatre sprays to help solve the odor problem, is spreading. Where there is a ventilating system, the spray material can be introduced constantly with the fresh air being forced into the building. Where there is no ventilating system, a regular spraying with electric sprayers prior to opening is the method used. These sprays for theatre use should be of the "fresh" type, that is not too sweet or flowery. Of course, heavy odors containing musk, coumarin, etc., last well, but frequently are disliked by

The washroom of the average theatre represents a very sizable outlet for soaps, cleansers, deodorants, and allied products.

people as part of the atmosphere of a theatre. The theatre spray is usually of the water-soluble variety, made up with alcohol and frequently containing small percentages of formaldehyde. They are available in finished form to the supply houses from numerous manufacturers.

FEW people who have not contacted the theatres, think of such places as harboring insects. Bed bugs give no end of trouble, especially in the older buildings with plush and other cloth seats. Even in the newer places, infestation is quite common. This problem does not confine itself to the poorer class of theatres but is widespread. Periodical cyanide fumigation by professional fumigators, although it meets a great many problems from the safety angle, is sometimes practiced. However, usually less effective but safer methods are used. Heavy spraying with hand or electric sprayers of all seats, carpets, and equipment is the method which represents a very considerable outlet for standard pyrethrum liquid sprays. The drawback to this method is that it does not always get to the insects hiding away in the body of the seats, in remote crevices, and that these will soon multiply again to their previous numbers. Regular and thorough spraying is the only method for keeping this type of infestation in hand. The professional exterminator is frequently called in to handle this problem. A well-perfumed pyrethrum spray is about the most practical product available for the purpose. The regular cresylic acid bed bug liquids cannot be used on account of their odor. Even where a regular kerosene is used as the base of the pyrethrum spray, the after-odor is frequently heavy and objectionable. An odorless oil base, although more costly, is much better for the purpose. The perfuming should not be the usual methyl salicylate-sassafras odor, which is associated in the minds of too many people with bug killers. Something the same as the theatre spray used in the building is most suitable. For the application to the interior of theatre seats, there are available spray guns with a hypodermic-like needle attachment. For other insects, such as moths, roaches, etc., the spraying treatment is also fairly effective if properly done. Where roaches inhabit lavatories, sinks, etc., the use of powdered fluoride-pyrethrum mixtures are generally more effective owing to their greater duration.

The theatre and moving picture house present an ever growing field for the sale of sanitary products and service. Many theatres the country over still have much to learn about sanitation and the products of sanitation. It is a job of education which the supply and service houses might well undertake at a considerable profit.

—— ♦ ——

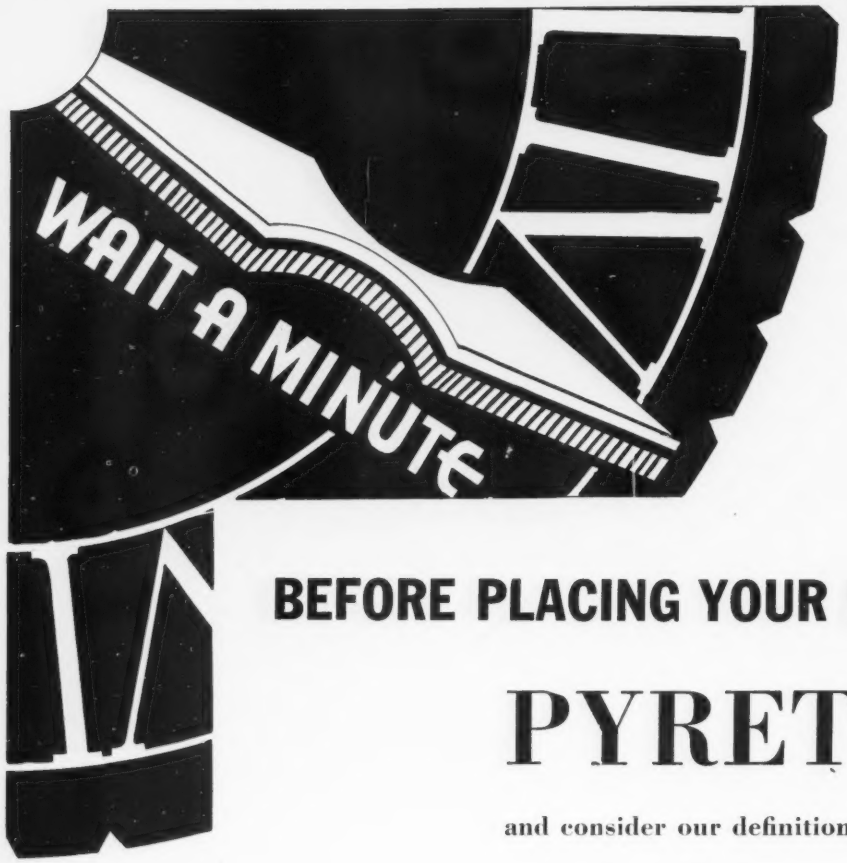
Of the contact insecticides, pyrethrum is the only one which has given any promise against the potato leafhopper. It is of value only in reducing immediate populations. It is highly toxic to leafhoppers, but has no residual value, so populations of hatching nymphs build up very rapidly in case of spray or dust applications. In areas where dusting is most practical or dusts are desired, dusting sulfur (300 inch mesh), combined with 5 to 10 per cent of pyrethrum dust has given excellent results. The pyrethrum dust in small quantity gives a toxic value for immediate reduction and the sulfur gives a residual value which prevents the rebuilding of the population when reduced. This is probably the safest and most economical form in which sulfur can be used. Dwight M. De Long. *J. Econ. Entomology* **27**, 525-33 (1934).

—— ♦ ——

The United States Department of Agriculture has just published two pamphlets listing United States patents from 1917 to 1933 relating to "Suction Machines for Catching Insects" and "Mechanically Operated Insect Traps." The information was compiled by R. C. Roark. Copies may be obtained by addressing the Insecticide Division of the Department, Washington.

—— ♦ ——

Pine oil, turpentine oil, citronella oil or other similar oils, are emulsified in water with sulfated fatty alcohols or esters, sulforicinates, or soaps, for use as insecticides. Aulagne et Cie. French Patent No. 757,152.



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A Comparison of Certain Methods for ASSAYING PYRETHRUM

By C. B. GNADINGER and C. S. CORL

McLaughlin Gormley King Co.

THE principal commercial methods for chemically evaluating pyrethrum are the acid method and the copper reduction method. The acid method was first proposed by Staudinger and Harder [5] in 1927. Tattersfield, Hobson and Gimingham [6] modified the Staudinger and Harder method in 1929, making it more accurate. The copper reduction method was published by Gnadinger and Corl [1] in 1929. Good agreement between the Tattersfield acid method and the Gnadinger-Corl copper reduction method has been reported by Martin and Tattersfield [3] and by Hartzell and Wilcoxon [2].

Recently, another modification of the acid method has been described by Seil [4]. Seil's method is more rapid and less difficult than that of Tattersfield, Hobson and Gimingham. However, Seil did not attempt to show either that his method determines only the pyrethrins or that it yields results which are comparable with those obtained by the older methods. In order to supply this information, in part, the writers have compared the results obtained by applying the Seil and Gnadinger-Corl methods to pyrethrum flowers and concentrated pyrethrum extracts.

Six samples of flowers and two concentrated extracts were assayed. The ages of the samples varied from one to forty-six months. The analyses were made during a period of three months, using different lots of reagents. Analyses of a given sample by the two methods were made simultaneously. Blank determinations on all of the reagents employed in the two methods gave negligible corrections. The standard alkali used in the Seil method was standardized against U. S. Bureau of Standards benzoic acid and acid potassium phthalate. All of the samples assayed are reported in Table I; none has been omitted.

Every sample assayed showed a higher pyrethrin content by the Seil acid method than by the Gnadinger-Corl copper reduction method. The samples were from 5.2 to 13.2 per cent higher in pyrethrins by the Seil method, averaging 9.4 per cent higher. The age of the flowers was apparently not an important factor, both old and new flowers showing higher pyrethrin content by the Seil method. Accordingly, purchasers of pyrethrum and pyrethrum products, who buy on a guaranteed pyrethrin content, should ascertain by which method the pyrethrin content has been determined.

Literature cited

[1] Gnadinger, C. B. and Corl, C. S., J. Am. Chem. Soc., **51**, 3054, 1929.
[2] Hartzell, A. and Wilcoxon, F., Contrib. Boyce Thompson Inst., **4**, No. 1, 107, 1932.
[3] Martin, J. T. and Tattersfield, F., J. Agr. Sci., **21**, 115, 1931.
[4] Seil, H. A., Soap, **10**, No. 5, 89, 1934.
[5] Staudinger, H. and Harder, H., Ann. Acad. Sci. Fennicae, **A29**, No. 18, 1927.
[6] Tattersfield, F., Hobson, R. P. and Gimingham, C. T., J. Agr. Sci., **19**, 266, 1929.

An improved insecticide comprises hydrocarbons obtained by the extraction of a petroleum naphtha with a solvent having a preferential solvent action for the hydrocarbons, and containing the extractives of at least one of the plants selected from the group consisting of pyrethrum, cube derris and the like. The Standard Oil Development Company, Canadian Patent No. 340,315.

The market for imported insecticides in Australia has contracted greatly in the last few years, chiefly because of the high import duty, high exchange rates, and competition from locally manufactured insecticides which are using imported pyrethrum. Domestic articles have been able to undersell similar articles imported into the Commonwealth and have secured a strong hold on the market.

Table I. Comparison of Seil Method with Gnadinger-Corl Method.

	Description	Crop year	Time between harvesting and assaying months	Pyrethrin content — Seil method I %	Seil method II %	Seil method Total %	Gnadinger-Corl method Total %
No. 1	Japanese flowers	1930	46	0.28	0.40	0.68	0.62
No. 2	Japanese flowers	1933	12	0.38	0.51	0.89	0.80
No. 3	Japanese flowers	1933	11	0.43	0.47	0.90	0.81
No. 4	Japanese flowers	1933	11	0.44	0.49	0.93	0.87
No. 5	American flowers	1934	1	0.50	0.53	1.03	0.95
No. 6	Japanese flowers	1934	1	0.41	0.60	1.01	0.96
No. 7	Concentrated extract	....	..	4.72	6.14	10.86	9.92
No. 8	Concentrated extract	....	..	5.86	6.84	12.70	11.22

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Powdered scrubbing soaps are recommended for heavier work such as cleaning garage and factory floors where grease and oil accumulate.

We do not manufacture scrubbing soaps, but we do produce Yarmor Steam-distilled Pine Oil. Manufacturers and users will benefit by investigating the advantages of liquid and powdered scrubbing soaps containing Yarmor.

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QQ-45

High Coefficient Disinfectants

Do They Represent the Greatest Germ-Killing Value Per Dollar of Cost to Average Consumer?

By C. C. BAIRD
President, Baird & McGuire, Inc.

THE average consumer of disinfectants is not equipped to use proper judgment in selecting a product which best suits his purpose. In most cases, he is interested only in obtaining a preparation with which he can kill harmful germs. This is more particularly true in the case of the purchaser of small retail packages for household use than it is for the institutional and industrial consumer. In some cases, the latter is quite familiar with disinfectants, their proper use, and the exact meaning of the phenol coefficient which appears on the drums and cans. In other cases, the industrial consumer knows little more than the average household buyer. They know the smell of the more common coal-tar disinfectants and are often guided by this in making purchases. For anything further, the retail purchaser and some institutional buyers must look respectively to the clerk in the store or the jobber's salesman for guidance. They must buy that which is recommended without any definite knowledge of its efficacy because they lack the knowledge to weigh the facts intelligently.

A number of manufacturers of disinfectants have over a period of years in different ways tried to educate the buyer as to what constitutes a dependable disinfectant. As far as they have gone in this effort, they have been sincere and their statements as a whole have been based on scientific research and known facts. But the subject of disinfection and disinfectants has been a difficult one to present to the layman in terms which he readily understands. This has been the chief obstacle to a true appreciation of the value of such products by the general public. The reliable manufacturers of disinfectants have for years been declaring on their labels the actual germicidal value of their products in terms of phenol coefficient, but unless the buyer knows enough to look for this statement and to interpret it in terms of his use of the product, it does not help him a great deal.

The absence of the statement of phenol coefficient on any drum, can or bottle has for some years among the manufacturers of disinfectants and knowing jobbers been sufficient to arouse the suspicion that the product may be deficient in germ killing power. Today, every package of a disinfectant must carry a statement of its phenol coefficient. There is no longer any option on the part of the manufacturer or jobber. Not only is it the accepted view of the Food and Drug Administration, but it is legally required under the code of the disinfectant and insecticide industry. And now that the phenol coefficient must appear on every package, there comes the question of recommending various disinfectants of various coefficients all the way from two to twenty for the innumerable purposes for which they are used. Shall it be a disinfectant of low coefficiency or high? Do high coefficient disinfectants represent a greater germ-killing value per dollar of cost than low coefficient? It is my opinion that the high coefficient product does give the consumer more for his money, is better to use and more sure in its results, and that educational efforts among consumers by both manufacturers and jobbers, as well as repackers of small packages, should be toward encouraging the high test products.

Although the statement of the coefficient on the package does guard the purchaser, who knows what it means, against imposition, it does not indicate that the disinfectant represents the greatest value for the money. It does not take any extensive knowledge of disinfectants or disinfection to figure out that those products with relatively high phenol coefficients are more economical to use than those with low coefficients. For instance, a disinfectant with a coefficient of ten is better, from a purchasing standpoint, than one with a coefficient of five. The former is twice as strong as the latter, and its purchase price per point of coefficient is considerably less. Inasmuch as a disinfectant with a phenol coefficient of ten, when diluted with two hundred parts of water is equal in germicidal strength to the standard solution of pure carbolic acid, it can be readily seen that disinfectants with greater strength are more economical to use than those of less strength.

Now a disinfectant which is twenty times stronger than carbolic acid, is generally diluted with four hundred parts of water for general disinfection, so that the cost per gallon of the fluid ready for use is almost negligible. Further than that, high coefficient disinfectant solutions are less odorous when applied, and are not poisonous, inflammable or corrosive. Disinfectants of high germicidal value are ideal for use as germicides, deodorants, antiseptics, for sterilizing the instruments of the surgeon, for treating many forms of cuts, wounds, sores, abrasions of the skin and to assist in the promotion of healing.

It requires considerably more skill to produce a disinfectant of high germ killing power than one which is relatively weak, for the ingredients must be balanced

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No Kerosene Odor-

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—♦—

Liquid insecticides made with DEO-BASE find ready acceptance by housewives, the best hotels, dairies, bakeries, clubs, food markets . . . in fact, wherever the kerosene odor of ordinary sprays is found objectionable.

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DEO-BASE conforms in every detail with the specifications of the National Association of Insecticide & Disinfectant Manufacturers.

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with precision to insure a product that is uniform in composition and uniform in results. Disinfectants possessing high phenol coefficients will quickly kill practically every known form of disease bacteria and at comparatively small cost. It is not the cost of the disinfectant in concentrated form which is to be considered but the cost of the disinfectant solution when prepared for use. As an illustration of this, let us say that a disinfectant with a coefficient of two costs at wholesale around 36 cents a gallon. When mixed with water and ready to apply, we have forty gallons of solution which brings the cost of each gallon slightly under a cent.

Now if a disinfectant with a coefficient of twenty costs around $1.10 a gallon, and we mix it with four hundred parts of water, in accordance with the directions, we have a final cost of approximately one-quarter of a cent a gallon. It will therefore be seen that the true economist in purchasing disinfectants will figure on what the fluid ready for use will cost, rather than what the disinfectant in concentrated form is priced at.

PINE OIL DISINFECTANTS

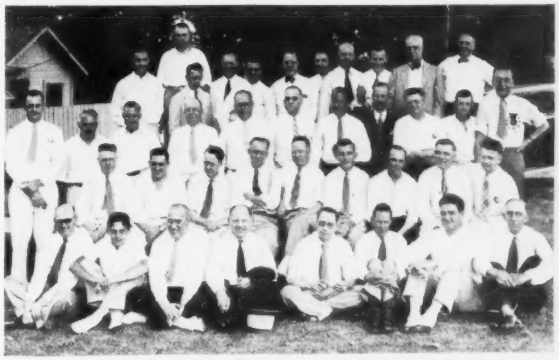
In making pine oil disinfectants, an efficient and stable emulsion is absolutely necessary in order to obtain the maximum phenol coefficient of a given pine oil. In choosing the ingredients, three factors are extremely important,—the tertiary alcohol content of the pine oil, its emulsifiable properties, and the emulsifying properties of the base. Each exerts its influence on the phenol coefficient of a disinfectant. A manufacturer may desire, for reasons of his own, to use a particular base which does not have very good emulsifying properties. Therefore, the properties of a pine oil to which this manufacturer should give first consideration are the emulsifiable properties, and second, the tertiary alcohol content.

Another manufacturer may use a base which has exceptionally good emulsifying properties. Then this manufacturer may give first consideration to the tertiary alcohol content, and second to the emulsifiable properties of a pine oil. Naturally, the disinfectant made by the second manufacturer might be expected to have a higher phenol coefficient than the one made by the first manufacturer. All other factors being equal, the disinfectant made with pine oil having the highest tertiary alcohol content will produce the highest phenol coefficient.

From a study of the three factors involved, it becomes clear that one manufacturer may use a pine oil containing 75-80 per cent of tertiary alcohols, and another a pine oil containing 60-65 per cent of tertiary alcohols, and both get disinfectants having the same phenol coefficient, due to lack of good emulsification in the latter case. E. V. Romaine. *Manufacturing Chemist.* 5, 225-8 (1934).

HUNTINGTON SALES CONVENTION

The annual sales convention of the Huntington Laboratories, Inc., Huntington, Ind., was held during the week of Aug. 13 at Lake Wawasee, Ind. Sales representatives from all sections of the country attended. Business sessions were held each day during the week, the meeting ending with a banquet on Saturday evening,



Aug. 18. Part of the entertainment program included a golf tournament in which the prizes were won by Spalding Hughes, representative of the Hospital Department in the New York area, and by J. L. Brenn, president of the company.

ROTENONE CONTENT OF DERRIS

The ordinary method of determining rotenone can be improved by making a correction for its solubility in ether, which is 0.042 gram per 10 cc. of solution. The ratio of rotenone to ether extract varies considerably with different samples. The rotenone content should be the principal criterion of the insecticidal value of derris root. An estimation of the methyl oxide content of the ether extract is of little value since several other insecticides also show methyl oxide contents between 15 and 16 per cent. Many factors influence the rotenone content of derris root, such as species, age, season of harvest, and size of roots. The smaller roots tend to contain less rotenone than large ones. The rotenone content often reaches a maximum in plants 23 to 24 months of age. In one sample the rotenone content varied from a trace to 12.6 per cent, and the ether extract from 2.5 to 33.6 per cent. D. R. Koolhaas. *Bull. Dujardin botan. Buitenzorg.* **12,** 563-74.

According to British specifications, soft soap for spraying purposes is required to dissolve completely in distilled water to give a clear solution. It must not contain more than 1 per cent of free caustic alkali and not more than 3 per cent of carbonated alkali. Not less than 95 per cent of the total alkali shall be potash. No limits are given for the percentages of fatty acids and rosin, but these are to be declared.

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DEVELOPED by our laboratory for use in PARADICHLORBENZENE and NAPHTHALENE preparations that are sold on a quality basis and where a distinctive high grade perfume is an asset. While slightly higher in price than perfume oils usually employed in this type of work they justify their costs by the excellent results they give. So that you may readily determine their value we have incorporated these odors in paradichlorbenzene and naphthalene and will gladly submit such samples to you.

We are in a position to extend the fullest cooperation to manufacturers as regards special odor requirements and will welcome any opportunity to work with you in the solving of your particular perfume oil problem. If you are not fully satisfied with your present oils why not give us a chance to submit samples for purposes of comparison?

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"It's the Odor that Sells the Product"

Exterminators to Meet in St. Louis

THE second annual convention of the National Association of Exterminators and Fumigators will be held at the Hotel Statler, St. Louis, on October 1, 2 and 3. All sessions of the meetings and entertainment features will be open to every firm or person engaged as an employer in the fumigating and exterminating service industry. President William O. Buettner of the Association states that an attendance of between two and three hundred is expected. Thomas C. Raley is chairman of the convention committee, assisted by Martin Meyer, D. Norman Dold, F. W. Harper and H. O. Abel. The St. Louis local society will handle all details of entertainment, etc. The program committee for the convention consists of William C. Duncan, chairman, and Charles Denny, William E. Martin, Thomas C. Raley, and N. K. Concannon. The program of the meeting in detail follows:

PROGRAM

Monday, October 1

A. M.

9:00 to 10:00—Registration.

10:45—Convention called to order. Thos. C. Raley, Chairman, Convention Committee, of the firm Getz Exterminators, Inc., St. Louis, Missouri.

10:15—Address of Welcome—Honorable Bernard F. Dickman, Mayor St. Louis.

10:30—Response—Nathan K. Concannon, Executive Secretary, New York Society of Exterminators & Fumigators.

10:35—Greetings from St. Louis Society of Exterminators and Fumigators, Frank Fahrenkamp, President.

10:45—Response—F. D. Hubbell, President, Baltimore Society of Exterminators and Fumigators.

10:50—Address of the President—William O. Buettner.

11:05—Report of Secretary—Irving H. Josephson.

11:15—Report of Treasurer—H. K. Steckel.

11:20—Committee Reports and Announcements.

12:00—"Derris as an Insecticide for the Control of Household Pests"—Dr. Thomas H. Lewis, S. B. Penick & Co.

P. M.

1:00—Luncheon.

2:00—Convention reconvenes—William E. Martin, vice-president, St. Louis Society, presiding.

2:05—Report of Committee on Legislation—Dr. Ernest D. Wilson, chairman.

2:10—"Termite Control"—Dr. Thomas E. Snyder, Senior Entomologist, Department of Agriculture, New Orleans.

3:10—"Industrial Fumigations"—Dr. George H. Chapman, American Cyanamid Co.

3:45—"Organization and Co-operation"—C. Norman Dold, Rose Exterminating Co.

4:00—"Illustrated Lecture on Termites"—Dr. J. A. Kreer, Antimite Co.

4:30—General Business: The Code—Samuel Bogorad, Washington, D. C.

5:30—Adjournment. (The evening will be utilized for round table discussions and a smoker for the men at 8:00 P. M.)

Tuesday, October 2

A. M.

9:30—Convention called to order, William O. Buettner, presiding.

9:35—Special Reports and Communications.

William O. Buettner

Thomas C. Raley

CORRECTION

EDITOR OF SOAP:

We regret that the article entitled "Exterminators to Meet in St. Louis" which appeared on page 340 of the August issue of SOAP stated that the purely business sessions of the convention will be open only to members of the National Association.

All convention sessions will be open to *every firm* of the industry—whether or not members of the National Association. This open invitation is granted for the purpose of having all firms become better acquainted with the problems and educational factors of our exterminating and fumigating industry.

WILLIAM O. BUETTNER,
President, Nat'l Assn. of
Exterminators and Fumigators, Inc.

9:45—"Rodent Control from the Bait Angle"—Dr. G. C. Oderkirk, Department of Agriculture.

10:45—"Legal Control of Fumigations"—Dr. C. L. Williams, Senior Surgeon, United States Public Health Service, New Orleans.

11:25—"Is the Control of Fumigation Hazards the Function of the Health Department?"—W. Scott Johnson, Chief of Sanitary Section, St. Louis Health Dept.

11:45—General Business, Legislation, "The Exterminators' Log"—Al Cossetta, Editor.

12:30—Adjournment.

P. M.

1:00—Luncheon.

2:00—Convention reconvenes—Thos. C. Raley, presiding.

2:10—"Termite Control"—D. F. E. Cislak, Reilly Laboratories.

3:30—"Pyrethrum"—Dr. Alfred Weed, Entomologist, John Powell Co.

4:00—"Moths and Moth Preventives"—A. Srebren, Murray & Nickell Mfg. Co.

4:30—General Business; Amendments to Constitution and By-Laws; Nomination of Officers and Directors.

LETHANE 384

A SOUND ECONOMIC POLICY

¶ Especial emphasis has never been placed upon the price advantage possessed by Lethane 384, because it is our conviction that few products ever succeed solely on a price basis. ¶ We have always believed firmly that quality should take precedence over price and we have held steadily to that conception. ¶ Even during the depression years, we have steadily improved the quality of Lethane 384 and we propose to continue to do so. ¶ In the competition between natural and synthetic products, the far-reaching possibilities of research inevitably give the advantage to the synthetic product ¶ This advantage is already being demonstrated in the case of Lethane 384 by the fact that this product is now less expensive than pyrethrum. ¶ This is, of course, important but it is our carefully considered opinion that the superiority of Lethane 384 over pyrethrum in stability, uniformity and effectiveness is of more fundamental importance. ¶ This superiority can always be counted upon.

Leading Manufacturers Are Using Lethane 384

RÖHM & HAAS CO., INC.

222 West Washington Square **Philadelphia, Pa.**

5:30—Adjournment.

Evening

7:00 to 9:00—Veiled Prophet Parade.

9:00—Banquet and Guest Speaker, Honorable Charles M. Hay, City Counsellor, St. Louis, "Legal Aspects of the Relation of the Fumigator and Exterminator to the Local Municipal Government."

Wednesday, October 3

A. M.

9:30—Convention called to order.

9:35—Election of Officers and Directors; Date and Location of Next Convention.

10:00—"Rodent and Woodchuck Control"—B. C. Culver, American Cyanamid Co.

10:30—"Structural Engineering Aspects of Termite Control"—J. M. Miller, Miller Pest Control System.

11:00—"Evaluation of Insecticidal Products"—John H. Mueller, Research Laboratories.

11:20—"Termites"—John Hoener, Bruce Terminix, Inc.

11:40—"Safety Legislation"—George L. Hockenyos, St. Louis Safety Council.

12:10—General Business.

12:30—Final Adjournment.

COLORIMETRIC DETERMINATION OF ROTENONE

Rotenone gives a red color with sodium nitrite, which is used for its estimation. Of the primary compounds associated with rotenone in plants, deguelin is the only one which also gives the color reaction. Nicotine or pyrethrum extracts do not give it. The method is as follows: Prepare an acetone solution of sample to contain 0.05-0.30 mg. of rotenone per cc. To 2 cc. of this add 2 cc. of a 10 per cent freshly prepared alcoholic potassium hydroxide solution. Immerse in water at 20° C. for exactly 2 minutes and add 6 cc. of sodium nitrite-nitric acid reagent. This is made by mixing 1 volume of concentrated nitric acid with 1 volume of a 0.025 per cent solution of sodium nitrite. Stopper the tube, mix the sample and reagent, cool to 20° C. and let stand at 20° for 15 minutes to develop the maximum color. Compare within a half hour with standards prepared at the same time from known quantities of pure rotenone.

Solvents other than acetone are unsuitable. Applied to derris or cube roots, the method gives higher results than the gravimetric method. The method is accurate only where interfering substances are absent. C. R. Gross and C. M. Smith. *J. Assoc. Official Agr. Chem.* **17**, 336-9 (1934).

In preparing a concentrated extract of pyrethrum the flowers are cut up, then extracted for 8 hours with ethylene chloride. After standing overnight, they are extracted for another 2 hours with the same solvent. This process is repeated 4 times with fresh portions of solvent. The first 2 extractions are used for the recovery of pyrethrum and the last 2 for the initial extraction of a new batch. The extracts are distilled in a vacuum at 60° C. The residue is extracted with a petroleum distillate, alcohol, acetone or carbon tetrachloride. The extract is kept at 0° C. for 3 days to allow traces of resins to settle out. D. Mann. *Chem.-Ztg.* 58, 401-2 (1934).

for **Product Protection, Economy *and* Customer Good-Will—**

E-Z SEAL STEEL BARRELS

Full Removable Head

●

Simple, Sealing Rings

●

Indestructible Covers

●

Air and Liquid-tight

●

High Second-Hand Value ($1 to $1.25)

Many famous brands of liquid, semi-solid, crystal, and powder products are now regularly shipped in *E-Z SEAL Barrels* to insure *product safety, customer preference,* and *economies in packing and shipping.* Simple, easy-to-operate sealing rings securely fasten the cover in place, making a positive, leak-proof closure.

Get the added prestige for YOUR Product that E-Z SEAL Barrels give!

GET ALL THE FACTS ON THESE PRACTICAL MODERN BARRELS — NO OBLIGATION TO YOU

We manufacture a complete line of modern steel Barrels, Drums, and Pails 1 to 65 gallon sizes.

WILSON & BENNETT MFG. CO.

GENERAL OFFICES AND FACTORY—6528 S. Menard Ave., Chicago. Phone—Republic 0200

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Jersey City, N. J.
Phones—Delaware 3-4700
Cortland 7-0231

SOUTHERN OFFICE & FACTORY
Cortez and Bienville Sts.
New Orleans, La.
Phone—Galvez 2171

Three Modern Factories
Sales Offices and Warehouses in Principal Cities

A Moderate Price Code

WE HAVE dedicated our laboratory and cost departments to the task of finding the lowest priced perfume oils without the sacrifice of quality and uniformity.

Our system of rigid testing for prime condition and freedom from deterioration has developed a uniformity that assures our customers of uniform finished products.

Our 40 years of uninterrupted progress has enabled us to perfect scientifically manufactured perfume oils, at a moderate cost, with pleasing odors—(different from the old standard odors)—that are always acceptable to consumers of Soap, insecticides, repellents, etc.

Our Code has not been unselfish for it has secured our reputation for square dealing and developed a concentration of purchases on

OUR PRODUCTS

ESSENTIAL OILS

Sandalwood E. I. U. S. P.
Patchouly Select
Lavender Flowers
Bergamot Italian
Cedar Leaf
Cedar Wood, etc.

M&R MAGNUS

PERFUME OILS

Almond
Acacia
Bouquet Parisien
Carnation
Chypre
Eau de Cologne
Gardenia
Heliotrope
Manhatta
May Blossom
Strawberry

Our research department is at your service to assist you in creating the best odor *at a Moderate Price* to meet your requirements.

MAGNUS, MABEE & REYNARD, INC.
Essential Oils

32 CLIFF STREET NEW YORK

INSECTICIDE ODORS TO FIT USES

By DR. ERIC C. KUNZ,
Givaudan-Delawanna, Inc.

THE consumption of household and industrial insecticides has pursued a parallel course to the improvements in the manufacture of insecticides. Foremost among these improvements has been the elimination of the nauseating odors which characterized the insecticides of the past. For a long time insecticides have been associated in the public mind with the disagreeable effluvia of cresol, pine oil and kerosene. However, today the public realizes that a good insecticide does not need to possess a bad odor.

The greatest step toward the modernization of fly sprays has been the adoption of a highly purified hydrocarbon distillate, free from kerosene odor, as a solvent and carrier for pyrethrum. Oils o fthis type, refined to a purity similar to that of the so-called white mineral oils, have all the desirable properties of kerosene, but lack its repulsive odor.

If pyrethrum, the active insect killing ingredient, were totally odorless, the employment of an odorless solvent would have settled the problem. Unfortunately, the pyrethrum flower itself has a slight but distinct herbaceous odor. Especially when pyrethrum sprays are used on food and tobacco products, this herbaceous odor is likely to impart a flavor foreign to the taste of the food product itself.

This created a problem for the chemist. He had to provide suitable odors which would blend with the pyrethrum odor in minute amounts so as to develop a characteristic aroma to match the product to be sprayed, whether that product be Kentucky tobacco, apple pie or strawberry shortcake. The chemist's problem was more than overcoming the odor of the pyrethrum flower with another odor,—he had to create a flavor of true strawberry, or tobacco, or true chocolate in which the odor of the pyrethrum extract constitutes a useful part of the odor combination desired.

In his efforts in this direction, the chemist was aided by his knowledge that the flavors of different food products,—and for that matter, of perfume products also,—are not due to one single substance. The odor and flavor of lemon, of a rose, and of countless other aromatic products are due to the combination of similar contributing flavors. In this pattern the chemist fitted the odor of the pyrethrum flower and achieved as the resulting flavor that of the product to be sprayed.

It is, of course, well known that odor and flavor are in most cases the same psychological and physiological sensation. The tongue to which we attribute the sensation of flavor is in reality sensitive only to something that is sweet, bitter, rancid or salty. All other sensations which we call "flavor" are perceived physiologically not by the nerves of the tongue, but by the olfactory nerves located in the upper regions of the nose.

By working out the problem with all these facts in

DISINFECTANTS
Coal-Tar
Pine Oil
Cresol

Get Ready for Fall Business . . . .
with a new line of
FLOOR MAINTENANCE MATERIALS

Our line is especially for the jobber who wants high quality products at competitive prices.

Lusterize—A water-emulsion wax which dries hard and glossy without rubbing. Waterproof, odorless, and conforming to all specifications.

All Brite—A high-grade neutral floor soap made especially for cleaning linoleum, rubber and asphalt tile.

Supersan Pine Floor Soap—For general floor scrubbing on terrazzo, tile, wood, and other types where a stronger cleansing action is desired.

Supersan Liquid Polishing Wax—Gives harder and glossier finishes than you have seen heretofore.

Let us send you samples and full information

CHEMICAL COMPOUNDING CORPORATION
262 Huron St., Brooklyn, N. Y.

WHY YOU CAN BE SURE *with* COAL TAR PRODUCTS FROM KOPPERS

1. KOPPERS IS ONE OF THE TWO LARGEST PRODUCERS OF COAL IN THE UNITED STATES

This has given Koppers a thorough knowledge of the coals from which tar products are produced.

2. KOPPERS BUILT OVER 75% OF ALL THE BY-PRODUCT OVENS IN THE UNITED STATES

This has made Koppers more familiar than any other organization with the processes of tar production.

3. KOPPERS IS ONE OF THE THREE LARGEST PRODUCERS OF CRUDE TAR IN THE UNITED STATES

This has kept it in intimate daily contact with the practical side of the production of coal tars and their products.

DEPEND ON KOPPERS FOR COAL TAR PRODUCTS

TAR ACIDS

CRESOL, U. S. P.

PHENOLS

CRESYLIC ACID

98% to 100% STRAW COLOR

TAR ACID OILS

NEUTRAL HYDROCARBON OIL

KOPPERS PRODUCTS COMPANY
KOPPERS BUILDING
PITTSBURGH, PA.

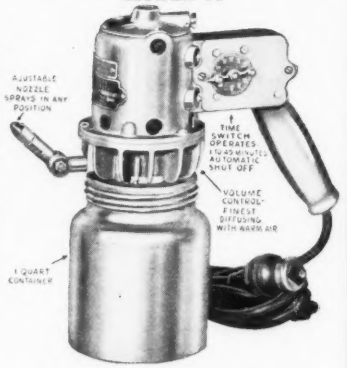
HERE IT IS!

AUTOMATIC — SAFE — TROUBLE FREE
FINEST CONTROLLED ATOMIZATION
WITH THE NEW

TORNADO ELECTRIC SPRAYER

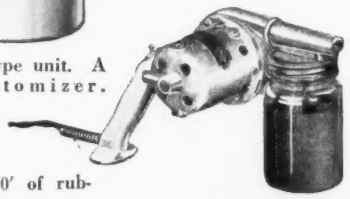
MODEL 54

Here is the new sprayer you've been looking for. It features an automatic time switch set at any point from 1 to 45 minutes — sprays desired amount without any attention whatever — automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. Don't fail to get the facts on this new type sprayer before buying.

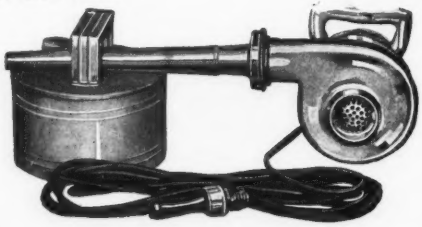

ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
TIME SWITCH OPERATES 1 TO 45 MINUTE AUTOMATIC SHUT OFF
VOLUME CONTROL: FINEST DIFFUSING WITH WARM AIR
1 QUART CONTAINER

Also Most Complete Line of Electric Sprayers to Enable You to Meet Every Spraying Problem

Model 53 new Compressor Type unit with new adjustable volume control. Will break insecticide into *finest* mist and gas formation mechanically obtainable. Floats throughout spraying area for many minutes—a truly de luxe model! 1/8 H.P. G.E. Universal Motor. 1 quart metal container. 20′ of rubber covered cable.



Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8′ to 10′. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20′ of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18′ to 20′. 1/3 H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for mothproofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.
862 Blackhawk Street **Chicago, Ill.**

We do not sell insecticides. Our business is manufacturing sprayers.

mind, the chemist has produced a variety of odors with which pyrethrum sprays of the odorless type can be adapted to the use of the baker, the restaurateur, the food market, the home, the tobacconist, the hospital, the theatre, the hotel, the pullman car, and to the many other users of insecticides.

Now it is possible to spray insecticides over chocolate, coffee beans, peanuts, tobacco, and what not without spoiling the product, yet without interfering in the least with the object for which the insecticide was designed in the first place, the killing of insects.

———♦———

Antiseptic washing agents are prepared by incorporating water-soluble mercury, silver or gold salts with aliphatic compounds having a strong detergent action. Such a compound should contain at least 8 carbon atoms and have an acid-sulfuric, sulfite, or phosphoric ester group in an end position, and should form water-soluble salts with the metals mentioned. An example is a mixture of mercuric chloride, silver nitrate or gold chloride with sodium palmityl sulfate. The mixtures may be prepared as solutions, as powders, bars, flakes, etc. I. G. Farbenind. A.-G. British Patent No. 407,039.

———♦———

A concern in Bogota, Colombia, is interested in contacting an American producer of insecticides and fertilizers. Inquiries may be addressed to the Bureau of Foreign & Domestic Commerce, Washington, mentioning file number 7715.

———♦———

McKesson & Robbins, Inc., earned net profit of $1,055,-191 during the first six months of 1934, comparing with net loss of $381,356 in the corresponding period of 1933.

———♦———

Two new products by the makers of "Mobiloil" are "Mobilwax" and "Mobilgloss."

———♦———

Pyrethrins may be extracted by halogenated hydrocarbons such as ethyl chloride or ethylene bromide. Compagnie universelle du Negoce. French Patent No. 761,228.

———♦———

A number of concerns in the American Cyanamid group are to be merged with the parent company and operated in the future as divisions of American Cyanamid & Chemical Corp. These include The American Powder Co., Fumigation Service, Inc., Fumigators Supply Co., General Explosives Corp., Maryland Chemical Co. and Owl Fumigating Corp.

———♦———

Returning to the air for Pepsodent after a summer's vacation, Freeman F. Gosden and Charles J. Correll, "Amos 'n Andy," will chalk up broadcast No. 2,956 over NBC networks Sept. 17.

SHERWOOD'S
DI-BUG
KILLS

DI-BUG PYRETHRUM EXTRACTS NO. 20 AND NO. 5 have exceptionally high killing power.

DI-BUG STEAM-O-CIDE is especially effective in steam and electric sprayers.

DI-BUG CATTLE SPRAYS
Effective and protective.

DI-BUG INSECTICIDE
Unperfumed and perfumed.
(Sold in bulk to jobbers only)

DI-BUG PYRETHRUM FLOWERS, Whole, Granular, Fine Powdered.

ALL PYRETHRUM PRODUCTS TESTED BY PEET-GRADY METHOD

DI-BUG SPRAYSENE
A petroleum oil refined to practically complete freedom from kerosene odor.

SHERWOOD
PETROLEUM COMPANY, INC.
Bush Terminal - - - Brooklyn, N. Y.

BRANCHES

Chicago, Ill. — Memphis, Tenn.
Detroit, Mich. — Atlanta, Ga.
Boston, Mass. — New Orleans, La.
Philadelphia, Pa. — Birmingham, Ala.

REFINERY—WARREN, PA.

for

36 years

makers of

PINE OIL DISINFECTANTS
COAL TAR DISINFECTANTS
STOCK DIPS
INSECTICIDES
POLISHES
CLEANERS
ROOF CEMENTS
ETC.

for Private Brand and Label

FOR "PRESTIGE" BUILDING

DISINFECTANTS

TRY

CHEMICAL SUPPLY QUALITY

COAL TAR DISINFECTANTS — PINE OIL DISINFECTANTS
PINE ODOR DEODORANTS
TECHNICAL CRESOL COMPOUND
IMPERIAL FORMALDEHYDE SPRAY — CHLORINE FORMALDEHYDE SPRAYS
ETC.

SAMPLES, PRICES AND FULL INFORMATION GLADLY GIVEN

MEMBER NATIONAL ASSN. INSECTICIDE AND DISINFECTANT MFRS. INC. 1914 INC.

THE **CHEMICAL SUPPLY** COMPANY
2450 CANAL ROAD
CLEVELAND OHIO
"SINCE 1898"

NRA

DOBBINS SUPERBILT MOP WRINGERS

All Metal—Absolutely Sanitary

No. 1020
20 Quart Janitor

No. 20
20 Quart Janitor

No. 1012
12 Quart Household

These heavy galvanized steel mop wringers are built to stand the hardest sort of use. They will not dry out and leak or absorb dirty water like ordinary wooden pails and are strong, sturdy and durable. Here is a truly profitable line for any jobber. Write for descriptive circulars and prices. If you are interested in sprayers or dusters ask for Catalog 43 at the same time.

DOBBINS MANUFACTURING CO., NORTH ST. PAUL MINNESOTA

S. H. BELL COMPANY FORMED

S. H. Bell Company has been organized by Samuel H. Bell, for some years associated with the Koppers Products Co., Pittsburgh. The new company will have headquarters at 1407 Gulf Building, Pittsburgh. The firm will act as sales agent for manufacturers of various coal-tar products such as tar acids and tar acid oils, crude and refined naphthalene, benzols, tolulol, and xylol and allied products. The firm will also handle naphthas, by-product sulfur, ammonium sulfate, and special oils for the paint and insecticide industries. Mr. Bell is a member of the board of governors of the National Association of Insecticide and Disinfectant Manufacturers.

A device for cleaning and disinfecting telephone mouthpieces and similar equipment,—a hollow tube of Durez moulded plastic filled with the disinfectant and cleanser and equipped with a wick for applying. Manufactured by Low Chemical Company of New York.

A competitive examination to select a chemist trained in insecticides for the Bureau of Entomology and Plant Quarantine has been announced by the U. S. Department of Agriculture. Applications must be filed in Washington before October 4. The position will pay approximately $3,000 per year.

The duty on ground derris root and ground timbo root has been fixed by the U. S. Treasury Department at 10 per cent ad valorem under paragraph 35 of the tariff act. When for use as medicines they are dutiable at 25 per cent. Pyrethrum extract was held dutiable at 20 per cent in the same decision.

Barrett Standard

CHEMICALS

Barrett Standard Chemicals are produced to strict specifications under rigid scientific control. The result is uniformly dependable, high-quality products.

A competent Barrett Technical Staff will gladly assist you in production problems involving the use of Barrett Standard Chemicals. Phone, wire or write.

BARRETT STANDARD CHEMICALS

PHENOL (Natural)
U. S. P. 39.5° M. Pt. and 40° M. Pt.
Technical 39° M. Pt.
Technical 82-84% and 90-92%

CRESOL
U. S. P., Meta Para, Ortho, Special Fractions.

CRESYLIC ACID
99% Straw Color and 95% Dark.

XYLENOLS

TAR ACID OILS

NAPHTHALENE
Crude, Refined Chipped, Flake and Ball.

PYRIDINE
Refined, Denaturing and Commercial.

HYDROCARBON OIL . . . BENZOL . . . TOLUOL . . . XYLOL . . . SOLVENT NAPHTHA . . . HI-FLASH NAPHTHA

TRADE B MARK

THE BARRETT COMPANY
40 RECTOR ST. NEW YORK, N. Y.

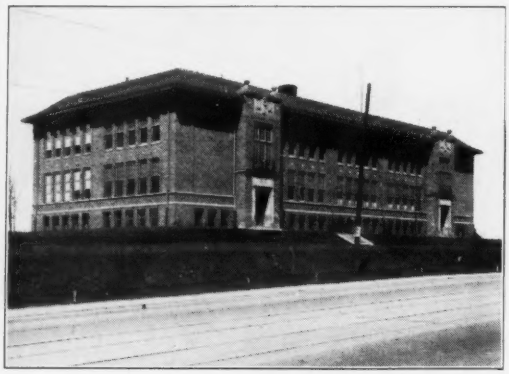
DEADLY
with unfailing certainty

- **PYRETHROL 20** is a superior concentrate standardized to contain not less than 2.15 grams of pyrethrins per 100 c.c. Made with a petroleum oil refined to complete freedom from kerosene odor.
- **PYRETHRUM-ROTENONE CONCENTRATE** contains pyrethrins and rotenone in the proper ratio, where rotenone is in solution and will remain in solution when diluted.
- **THE FINEST PYRETHRUM POWDER** available with a known high pyrethrin content, milled under temperature controlled conditions.
- **DERRIS EXTRACT** containing 5.0 grams of rotenone per 100 c.c. plus the other toxic derivatives of derris root.
- **DERRIS RESINATE** containing 25% rotenone and 75% active resins.
- **ROTENONE CRYSTALS** as solvate—71% rotenone.
- **DERRIS POWDER STANDARDIZED**—containing 4% rotenone.
- **ROTENONE TECHNICAL** and **C. P.**

McCORMICK and COMPANY, INC., BALTIMORE, MD.

Standardized Pryethrum and Derris Products

PYRETHROL 20



This School Has Floor Maintenance Problems

So has every large building.

Schools	Warehouses
Hospitals	Show Rooms
Hotels	Department Stores
Gymnasiums	Ball Rooms
Theatres	Halls
Public Buildings	Offices

These are always in the market for satisfactory products for floor maintenance.

You can absolutely reach this huge market with Federal Specialized Floor Preservative Products. They enable you to make authentic recommendations to meet every individual requirement because we educate you so thoroughly in proper floor maintenance you become floor specialists.

We can do this because our entire technical staff is working and specializing on this one field. Such well known products as, Mop-Var, No-Burn Gym Finish, Lightning Lustre and many others have come from our Laboratory. We are America's largest manufacturer of floor preservatives and polishes selling in bulk.

Floor maintenance is a tremendous field for increasing your sales and profits.

Let us tell you how Federal Specialized Floor Products, backed by our proven sales and merchandising ideas, will open up this vast market for you.

FEDERAL VARNISH CO.

337 So. Peoria St. Chicago, Ill.

The Union of South Africa continues an important and growing market for American chemicals and allied products due to improved purchasing power of the South African pound in terms of dollars and to better domestic conditions, according to C. C. Concannon, chief, U. S. Commerce Department's chemical division. Purchases of insecticides and disinfectants aggregated $162,700 in 1933. Toilet soap purchases amounted to $172,000, while toilet preparations added another $132,000.

After a number of the factors protested against a licensing law recently imposed upon them, Alabama, Florida and Georgia naval stores' factors named a control committee at a meeting in Brunswick, Ga., Sept. 7. The committeemen with alternates, are as follows: H. M. Wilson and H. Weibert, Jacksonville; H. A. Lurton and H. E. Wickersham of Pensacola; Thomas J. Taylor and E. C. Hughes of Mobile; O. T. McIntosh and P. J. Rooney of Savannah, Ga., and D. A. Sapp and Carvel Carson of Brunswick, Ga. A control committee was also named by naval stores dealers.

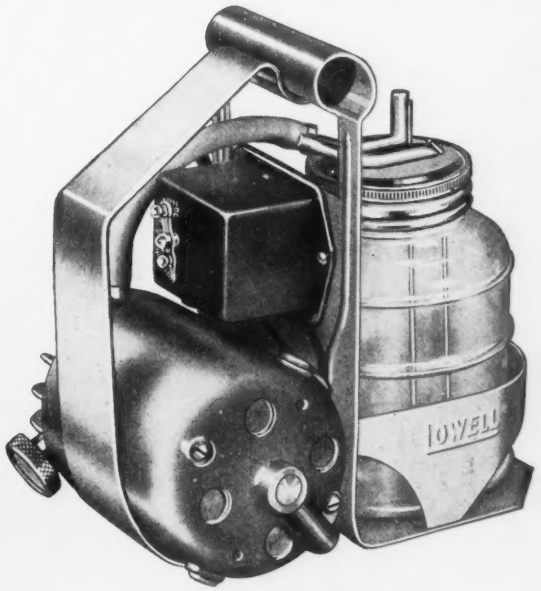
The Wizard Chemical Co. has been organized in Buffalo, N. Y. by M. Smith, 689 Genesee Street, and associates, to engage in the manufacture and distribution of household chemical products.

Talbot's Argentine Ant Poison has been packaged of late in a new "ready to use" small container which acts as a safety device against accidental poisoning of dogs, cats, etc. For use, the inside seal of the closure is removed, permitting the ants to reach the poison through the small hole in the middle of the metal cap. Cap made by Phoenix of Chicago. Photo by Heetfield-Tillou.

LOWELL
ELECTRIC INSECTICIDE VAPORIZER

Plug into Light Socket — Turn on the Power — It Is Instantly Ready for Use. Nothing to Heat Up — and the Fine Dry Spray Instantly Rises in a Cloud of Death to Insects.

Cost of Operation approximately Half that of Steam Outfits.



No. 300 Electric Vaporizer

● **The New, Improved** combination spray head permits the use of either an angle or parallel spray by merely changing the air supply tube to position desired. Portability made easy by carrying handle.

The addition of the convenient pistol grip type handle allows the vaporized contents to be directed into otherwise inaccessible places such as under sinks, into closets and along the mould boards.

Time Switch can be set to any period of time from one to thirty minutes, according to size of room to be treated, and automatically turns off motor at end of period.

Write for Full Particulars to

LOWELL MANUFACTURING COMPANY

Lowell, Michigan, U.S.A.

BUILD BUSINESS UNDER YOUR LABEL

WE FURNISH THE LABELS WITH YOUR NAME IMPRINTED AT NO EXTRA COST

LIQUID SOAP BASE
Contains glycerine to give your finished product a smooth soothing effect to the skin.

LIQUID TOILET SOAP
Contains glycerine and gives a smooth soothing effect to the skin.

METAL POLISH
No harsh odor. Polishes easily and quickly. Pink color. Non-inflammable and non-settling.

PINE DISINFECTANT
Give a milk white emulsion in water. Has an unusual pleasant pine odor.

COAL TAR DISINFECTANT
Gives a milk white emulsion in water. Carbolic odor.

PINE FLOOR CLEANSER
A liquid floor cleanser having a fragrant pine odor. For cleaning glossy surfaces and linoleum, rubber, tile, etc.

Samples and prices upon request. Check items you are interested in and mail to

NEW YORK SOAP CORPORATION

294 PEARL ST., NEW YORK, N. Y.

OTHER QUALITY PRODUCTS

PINE DEODORANT CLEANSER
LIQUID SHAMPOO
COAL TAR DEODORANT CLEANSER
SHAMPOO BASE
OIL SOAP
SILVER POLISH

PERCOLATING?

WHEN IT WOULD PAY TO BUY

AN-FO BRAND No. 20

CONCENTRATED PYRETHRUM EXTRACT

ISOLATION PROCESS
Saves labor, equipment, and avoids disappointment.

KILL-COLOR-ODOR
The Isolation Process assures you the full color of 1 lb. of high quality Japanese Flowers per gallon; the full kill by the Peet Grady method of testing. AN-FO No. 20 contains full 2.15 grammes Pyrethrins per 100 cc.

SAMPLE FREE

AN-FO MFG. COMPANY, OAKLAND, CALIF.

KOPPERS WHITE TAR MOTH PROOFING PRODUCTS

Deodorizing
AND MOTHPROOFING
Blocks
PLAIN AND PERFUMED
MADE WITH NAPHTHALENE OR PARA BASE

NAPHTHALENE FLAKES, CHIPS, etc.
DISINFECTANTS EMULSION AND SOLUBLE TYPES
FLY SPRAYS HOUSEHOLD SPRAYS CATTLE SPRAYS

MEMBER NATIONAL ASSN. INSECTICIDE AND DISINFECTANT MFRS. INC. 1914 INC.

THE WHITE TAR COMPANY
OF NEW JERSEY, INC.
PHONE KEARNY 2-3600
BELLEVILLE PIKE KEARNY, N. J.

U. S. SOAP IMPORTS UP

The United States purchased nearly twice as much imported cosmetics, perfumes, and soaps during the first 6 months of 1934 as during an equivalent period of 1933. Part of the increase in value is due to the decreased value of the dollar on the foreign exchange. In the order named, the principal items and sources of supply are castile soap, Italy and Spain; toilet and other soap, United Kingdom, France, Germany, Spain, and Japan; bay rum, the Virgin Islands; perfumery and toilet water, France, Germany, Switzerland, United Kingdom, and Japan; bath salts, United Kingdom; cosmetics, powders, creams, etc., France, Germany, Japan, and United Kingdom. Details of this import trade are shown in the following table:

	Six Months Ended June	
Soaps:	1933	1934
Castile	$80,000	$116,000
Toilet	71,000	87,000
All other	55,000	82,000
Perfumery, bay rum, toilet water	126,000	227,000
Bath salts	2,000	1,000
Cosmetics, powders, creams, etc.	100,000	105,000
Total	$434,000	$618,000

The offices of the Michigan Alkali Co., and its affiliate the Merchants Chemical Co., Inc., have been moved to the Lincoln Building, New York. The new telephone number is Vanderbilt 3-6820.

Bulk

Shampoo Bases
Liquid Soap Base
Green Soft Soaps

Liquid Shampoos
Liquid Toilet Soaps
Scrubbing Soaps

For Repacking and Jobbing 55 years' experience assures satisfaction.

GEO. A. SCHMIDT CO.
INCORPORATED
Manufacturers of SOAPS *of Every Description*
236-238 West North Avenue
Chicago.

HOOKER 'PARADI'

(Reg. U. S. Pat. Off.)

Hooker Paradichlorbenzene is specially prepared for use in the manufacture of moth preventives and deodorants. It is offered in six standard crystal sizes.

Ready for immediate shipment in 200 and 100 pound barrels as well as 50 and 25 pound kegs.

HOOKER CHEMICALS

Caustic Soda	Benzyl Alcohol
Liquid Chlorine	Benzotrichloride
Bleaching Powder	Chlortoluene
Muriatic Acid	Aluminum Chloride
Monochlorbenzene	Antimony Trichloride
Ortho-dichlorbenzene	Arsenic Trichloride
Para-dichlorbenzene	Tin Tetrachloride
Trichlorbenzene	Ferric Chloride
Tetrachlorbenzine	Ferrous Chloride
Hexachlorbenzene	Sulfur Monochloride
Sodium Benzoate	Sulfur Dichloride
Ammonium Benzoate	Sulfuryl Chloride
Benzoic Acid	Thionyl Chloride
Benzoic Anhydride	Acetyl Chloride
Benzoyl Chloride	Propionyl Chloride
Para-nitrobenzoyl Chloride	Alpha-Chlornaphthalene
Benzyl Chloride	Special Salt
	Hydrogen

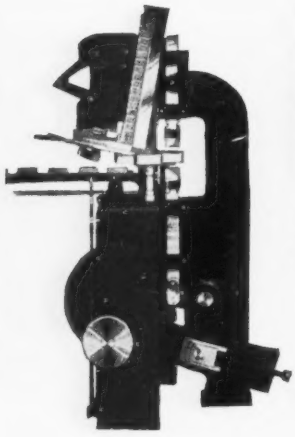
HOOKER HE CO ELECTROCHEMICAL

HOOKER ELECTROCHEMICAL COMPANY

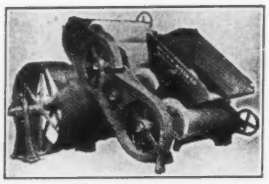
Eastern
Plant—Niagara Falls, N. Y.
Sales Office—60 E. 42nd St., New York

Western
Plant—Tacoma, Washington
Sales Office—Tacoma, Washington

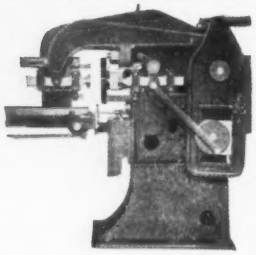
Special Offerings of SOAP MACHINERY *Completely Rebuilt!*



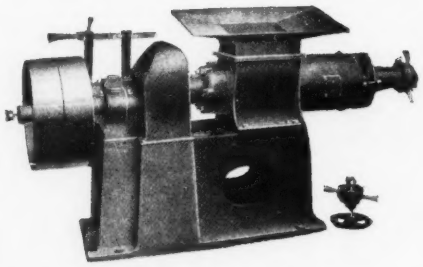
Small size fully automatic Jones toilet soap press. Capacity 150 to 200 small cakes per minute. A real buy at an attractively low price. Has been completely rebuilt in our own shops.



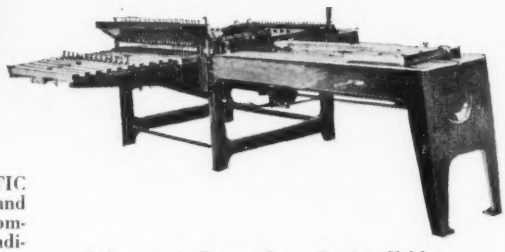
H-A SOAP MILL
This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls.



4 JONES AUTOMATIC combination laundry and toilet soap presses. All complete and in perfect condition.



Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.



2 Automatic Power Soap Cutting Tables

NEW CRUTCHERS!

This Newman brand new, all steel steam jacketed soap crutcher. Will crutch any kind of soap. We also build another crutcher especially adapted for laundry soap in addition to other new soap machinery such as frames, cutting tables, etc. Send for complete list.

ADDITIONAL USED SOAP MACHINERY

H-A 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.

Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.

Ralston Automatic Soap Presses.

Scouring Soap Presses.

Empire State, Dopp & Crosby Foot Presses.

2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.

H-A 4 and 5 roll Steel Mills.

H-A Automatic and Hand-Power slabbers.

Proctor & Schwartz Bar Soap Dryers.

Blanchard No. 10-A and No. 14 Soap Powder Mills.

J. H. Day Jaw Soap Crusher.

H-A 6, 8 and 10 inch Single Screw Plodders.

Allbright-Nell 10 inch Plodders.

Filling and Weighing Machines for Flakes, Powders, etc.

Steel Soap frames, all sizes.

Steam Jacketed Soap Remelters.

Automatic Soap Wrapping Machines.

Glycerin Evaporators, Pumps.

Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.

Perrin 18 inch Filter Press with Jacketed Plates.

Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.

Day Grinding and Sifting Machinery.

Schultz-O'Neill Mills.

Day Pony Mixers.

Gardiner Sifter and Mixer.

Proctor & Schwartz large roll Soap Chip Dryers complete.

Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.

Day Talcum Powder Mixers.

All types and sizes—Tanks and Kettles.

Ralston and H-A Automatic Cutting Tables.

Soap Dies for Foot and Automatic Presses.

Broughton Soap Powder Mixers.

Williams Crutcher and Pulverizer.

National Filling and Weighing Machines.

All used equipment rebuilt in our own shops and guaranteed first class condition.

Send us a list of your surplus equipment—we buy separate units or complete plants.

NEWMAN TALLOW & SOAP MACHINERY COMPANY 1051 W. 35th ST. CHICAGO

Our Forty Years Soap Experience Can Help Solve Your Problems

CLASSIFIED ADVERTISING

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, $2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, $1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap*, 136 Liberty St., New York.

Note: All advertisements must be in publisher's hands by the first of the month for that month's issue.

Positions Wanted

Chemist — young man, married, experienced in soap, oil and fat industries. Has had charge of production and laboratory. Knows soap and oil from "A to Z". Address Box No. 429, care *Soap*.

Salesman—Man with number of years experience and many contacts among wholesale grocery, drug and chain stores in New York and nearby territory, desires to represent out-of-town manufacturer in this territory on cleansers, soap powders, toilet and laundry soaps. Address Box No. 426, care *Soap*.

Soapmaker and Chemist—Thoroughly familiar with the manufacture of laundry, textile and toilet soaps, soap powders, etc., and having ample experience in oil and fat refining, glycerine recovery, analytical work, seeks permanent connection with progressive concern. Address Box No. 418, care *Soap*.

Insecticides—plant superintendent and chemist who has had twenty years' experience in manufacturing insecticides and ten years' experience with biological and chemical control of leading fly spray manufacturer, seeks new connection. Highest references. Address Box No. 424, care *Soap*.

Soapmaker, perfumer, superintendent — laundry, toilet, soda, potash soaps, all processes; toilet preparations. Install plants — long experience. Address Box No. 427, care *Soap*.

Plant Superintendent, Chemical Engineer—Has thorough knowledge and wide experience in the manufacture and production of boiled and cold made soap on large scale. Address Box No. 428 care *Soap*.

Executive twelve years' experience nationally known hand soap company, full charge production, purchasing all material. Immediate connection desired. Address Box No. 419, care *Soap*.

WARREN SOAP

Manufacturers of Specialty Soaps
Since 1868

Potash Oil Soaps
Emulsifying Agents
Solvent Soaps
Cleaning Compounds
Private Formulas
Industrial Soaps

Automobile Soaps
Liquid & Paste
Liquid Soaps
Soap Powders
Forresters' Soaps
To increase the spread and adherence of Insecticides

The Warren Soap Mfg. Co.
Incorporated
Kendall Square Bldg., Cambridge, Mass.

SOAP MACHINERY

Every item shipped from our shops at Newark, N. J., is thoroughly overhauled and rebuilt before shipment.

SPECIALS

1—Soap Chip Dryer, 1200 lb.
2—Dopp 650 gal. Steam Jacketed Kettles.
1—Dopp 1200 lb. Steam Jacketed Crutcher.
1—Hershey 1000 lb. Horizontal Jacketed Crutcher.
1—1000 lb. All Steel Soap Powder Mixer.
2—Holmes & Blanchard 24" and 36" 4 cage Disintegrators, for grinding soap powder—no screens, no plugging.

25—Soap Frames, 60"x45½"x14", with trucks.
6—Plodders, Houchin, Rutschman, 4", 4½" double screw, 6", 8", 10".
14—Filter Presses, 42"x42" to 12"x12".
8—Granite Mills, 3 and 4 roll, 12", 18" and 24".
15—Horizontal Mixers, Jacketed and Plain, 15 gal. to 1000 gal.

MISCELLANEOUS—Kettles, Mixers, Pony Mixers, Powder Fillers, Tube Fillers, Labelers, Soap Presses, Soap Wrappers, Tanks, Boilers, Pumps, etc.

Send for Latest Bulletin.

CONSOLIDATED
PRODUCTS COMPANY, INC.
15-21 Park Row, N. Y. C. BArclay 7—0600
We buy your idle Machinery—Single items or entire plants.

Vioflor

A CHEMICALLY SOUND, PERMANENT DEODORIZER

THIS product is a great help to manufacturers of insecticides, naphthas, waxes, polishes, and Paradichlorbenzene blocks.

It saves you 40% to 70% of your perfuming cost *without changing the odor effect you now have in your product.*

It takes only a few minutes to demonstrate this.

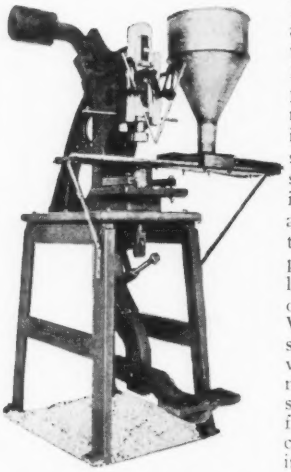
On every thousand dollars you now pay out for perfuming ingredients why not save $400.00 to $700.00?

Manufactured by
CREPIN & DOUMIN, Ltd., London, England

Sold in the United States and Canada by

JOHN POWELL & CO., Inc.
114 East 32nd Street :: New York, N. Y.

Machine-Made DEODORANT CAKES and BLOCKS *are big sellers!*



Make your deodorant and moth cakes with this heavy pressure foot press by the cold process and save money while you are increasing sales. A smooth, even cake will sell better because of its improved appearance and will cost less to make because this press not only cuts labor but saves 5% of your raw material. Why not let us make some sample cakes with your own para, naphthalene, etc., and submit complete information regarding cost and manufacturing process?

HOUCHIN MACHINERY CO., INC.
HAWTHORNE, N. J.

MAILING LISTS

Pave the way to more sales with actual names and addresses of Live prospects.

Get them from the original compilers of basic list information—up to date—accurate—guaranteed.

Tell us about your business. We'll help you find the prospects. No obligation for consultation service.

FREE 60 page Reference Book and Mailing LIST CATALOG

Gives counts and prices on 8,000 lines of business. Shows you how to get special lists by territories and line of business. Auto lists of all kinds.
Shows you how to use the mails to sell your products and services. Write today.

R. L. POLK & CO.
Polk Bldg.—Detroit, Mich.
Branches in Principal Cities
World's Largest City Directory Publishers

Mailing List Compilers. Business Statistics. Producers of Direct Mail Advertising.

Competent Soapmaker—with many years experience in all sorts of soap manufacturing, looking for kettleman position in larger soap factory. Address Box No. 420, care *Soap*.

POSITIONS OPEN

District Representative—Large 27 year old Milwaukee manufacturer requires high calibre men to sell a complete line of bulk soaps and cleaners to industrial and institutional users. Must have years of experience in this field. Desirable protected territory available. Liberal remuneration. Excellent repeat sales possibilities. No investment required. Give complete information in first letter. Address Box No. 416, care *Soap*.

Salesman Wanted—by about October 15th. Must be experienced and successful in Soap line and kindred chemicals as Soap Powder, Detergents, etc. Travel out of New Orleans for old established nationally known Chemical Corporation with plants and branch offices throughout the United States. Territory open Louisiana, Texas, Oklahoma, Arkansas and Mississippi. Position primarily for contacting with Jobbers and Distributors. Apply, stating age, experience, references, past connections and salary expected care of P. O. Box No. 332, Marrero, Louisiana.

STEEL DRUMS

That are built to last!

30-55-110 gal. sizes

The BEST Containers for
LIQUID SOAPS
DISINFECTANTS
CLEANSERS
ESSENTIAL OILS
VEGETABLE OILS
CHEMICALS
GLYCERIN
ETC.

Black, Galvanized, Tinned

Sturdy and long lasting, the Trageser heavy duty steel drum will be carrying your materials to market long after cheap containers have found the junk pile. Order a sample drum.

JOHN TRAGESER STEAM COPPER WORKS
GRAND STREET MASPETH, L. I., N. Y.
Special tanks, tubs, pails, etc.

CRYS-TINTS

PERFUME and color Para Blocks and Crystals, Bath Salts and Moth Balls in one operation.

The use of Crys-Tints eliminates doubtful results for they provide uniform distribution of Odor and Color and are extremely lasting and stable.

Orange Blossom	**Narcisse**	**Violet**
New Mown Hay	**Wisteria**	**Lilac**
Carnation	**Oriental**	**Rose**
Lavender	**Jasmin**	**Pine**

8 OUNCES TO 100 LBS., RECOMMENDED

$1.50 per Lb.
Double Strength, $2.90 per Lb.
Series D—Uncolored, $ .50 per Lb.
Series E—Uncolored, $1.00 per Lb.

Compagnie Parento, Inc.

CROTON-ON-HUDSON, N.Y.
NEW YORK CITY TORONTO

Increase your SALES with
QUALITY
FLOOR WAXES

IN BULK
or packaged under
PRIVATE LABEL
MADE RIGHT
PACKED RIGHT
PRICED RIGHT

WINDSOR WAX CO.

50 Church St. New York, N. Y.
Factory: 611 Newark St., Hoboken, N. J.
Manufacturers of
WAX PRODUCTS EXCLUSIVELY

Send for
SAMPLES and QUOTATIONS

NRA MEMBER U.S. WE DO OUR PART Reg. No. 6

We Manufacture

For The Trade ONLY

Liquid Soap Base
Auto Soaps
Potash Oil Soap
Shampoo
U.S.P. Cresol Compound
Coal Tar Disinfectants
Liquid Soap
Pine Oil Soap
U.S.P. Green Soap
Shampoo Base
Pine Oil Disinfectants
Insecticides

Ask for samples of these specialty bulk products

HARLEY SOAP CO.
2852 E. Pacific St. Philadelphia

TSP

Preferred for its colorless crystals of uniform size and sparkling appearance. Prompt deliveries made from convenient distributing points. Packed in 325-pound paper lined barrels. Also in kegs and bags.

BOWKER
CHEMICAL COMPANY
50 Church St. New York
BRANCHES
Baltimore, Md. Chicago, Ill.

NEW IDEAS · INFORMATION

SOAP TRADE REVIEW

NOW more than ever, it is necessary to keep in touch with trade developments in all parts of the world. THE SOAP TRADE REVIEW is the only monthly dealing exclusively with the Soap, Perfumery and Cosmetic Industries in Great Britain. It contains authoritative articles and the latest news and information of interest to those engaged in these industries.

Specimen copy posted free.

Subscription rate 12/6 per annum.

THE SOAP TRADE REVIEW
102-5 SHOE LANE, FLEET STREET
LONDON, E. C. 4

Wanted—Alert young man to sell a well-known line of disinfectants, liquid soaps, deodorizing cakes, shampoo bases, etc. Address Box No. 421, care *Soap*.

Eastern manufacturer desires industrial chemist thoroughly experienced in manufacturing soaps, disinfectants, polishes, waxes. State experience, age, salary expected. Address Box No. 414, care *Soap*.

Exclusive territory open in all large cities of this country to men of ability on straight commission basis. Product is a carpet rug and upholstery cleaning powder. Address Guaranty Washing Co., 220—5th Ave., New York City.

Miscellaneous

Long established manufacturer of chemical specialties with extensive plant and laboratory facilities, will purchase formulae, or manufacture on royalty basis, new chemical specialties that are original or not highly competitive. Brief description of item and possibilities must be given in first letter. Address Box No. 417, care *Soap*.

For Sale—Jones automatic soap press—write or phone Garber Eagle Oil Corp., 345 Hewes St., Brooklyn, N. Y.—STagg 2-9300.

Machinery Wanted—Crude glycerine evaporator in good condition at an attractive price. Address Box No. 413, care *Soap*.

Cube Roots for large users. Direct importation carrying right to process under my patents. Address W. J. Dennis, Des Moines, Ia.

Wanted—Established sales agent in Mexico desires to represent American manufacturer on commission basis. Covers Mexico and other parts of Central America. Knows the buyers of chemicals, soap raw materials, insecticide materials, perfume products, etc. References furnished. Correspondence in English or Spanish. Address Box No. 383, care *Soap*.

A formula for a powder or an established business is desired by a large manufacturing firm, which product is definitely antiseptic in character to be used for household cleaning purposes. No price limit. Chief purpose is right product. Address Box No. 389, care *Soap*.

Wanted—To complete files. Copy of *Soap* for March, 1931, and for May, 1933. Please write to Box No. 370 if available.

NEW AND REBUILT
SOAP MACHINERY

We offer to the trade our NEW IMPROVED 600 and 1,200 lb. FRAMES, SLABBERS, CUTTING TABLES, FOOT PRESSES, etc. Send for details.

1—Automatic Power Para Block Press
2—Broughton Mixers, jacketed.
1—10A Blanchard Mill
4—Soap Presses, Foot and Power
6—Filter Presses, sizes 6" to 36"
6—Granite Stone Mills, 2, 3, and 4 rolls
1—Proctor Soap Chip Dryer, complete
1—Automatic Soap Press
4—Steel, 3 and 5-roll Mills
1—Jacketed Vertical Crutcher
2—1,500 lb. Horizontal Crutchers
20—1,200 lb. Frames

Cutting Tables, Slabbers, Kettles, Pumps, Tanks, Filter Presses, Wrapping Machines, Tube Fillers, Closers, Crimpers, Dry Powder Mixers, Pulverizers, Grinders, Amalgamators, Mixers, etc.

Send for Complete List (Bulletin No. 15)

WE BUY AND SELL FROM SINGLE ITEMS TO COMPLETE PLANTS.

STEIN-BRILL CORPORATION

183 VARICK STREET — NEW YORK, N. Y.
Phone: WAlker 5-6892-3-4 — Cable Address: "BRISTEN"

COLORS

FAST GREEN FOR SOAP
FAST TO SOAP BY ANY PROCESS
Boiled
Half Boiled
Cold
Transparent or
Liquid
Proved for thirty years
W 710 BLUISH GREEN
W 709 OLIVE GREEN

A. C. DRURY & CO., INC.
International Merchants
Essential Oils—Waxes—Talc—Clay—Colors—Zinc Oxide, etc.
219 EAST NORTH WATER ST. — CHICAGO

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 118, for page numbers. *"Say you saw it in SOAP."*

ALKALIES

American Cyanamid & Chemical Corp.
Columbia Alkali Co.
Dow Chemical Co.
Hooker Electrochemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Stauffer Chemical Co.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

Budd Aromatic Chemical Co.
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
A. C. Drury & Co.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Monsanto Chemical Co.
Naugatuck Chemical Co.
Newport Chemical Works
Polak's Frutal Works
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

BULK AND PRIVATE BRAND PRODUCTS

An-Fo Manufacturing Co.
Baird & McGuire, Inc.
Chemical Compounding Co.
Chemical Supply Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Fuld Bros.
Harley Soap Co.
Huil Co.
Koppers Products Co.
Kranich Soap Co.
New York Soap Corp.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
Warren Soap Mfg. Co.
White Tar Co.
Windsor Wax Co.

CHEMICALS

American Cyanamid & Chemical Corp.
Bowker Chemical Co.
Columbia Alkali Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Mechling Bros. Chemical Co.
Monsanto Chemical Co.
Newport Chemical Works
Niagara Alkali Co.
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Stauffer Chemical Co.
Swann Chemical Co.
Jos. Turner & Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid Oil, etc.)
American Cyanamid & Chemical Corp.
Baird & McGuire, Inc.
Barrett Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

CONTAINERS

Continental Can Co. (Tin Cans)
Maryland Glass Corp. (Bottles)
Metal Package Corp. (Tin Cans)
Owens-Illinois Glass Co. (Bottles)

DEODORIZING BLOCK HOLDERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products, Inc.

ESSENTIAL OILS

Budd Aromatic Chemical Co.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer Inc.
A. C. Drury & Co.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Mabee & Reynard, Inc.
Polak's Frutal Works
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

(*Continued on Page* 116)

Consulting Chemists and Engineers

Specializing in Soaps, Disinfectants, Insecticides, Polishes, Etc.

PEASE LABORATORIES, Inc.
Chemists, Bacteriologists, Sanitarians
39 West 38th Street
New York
Food, Drug and Cosmetic Problems—Compliance with Official Requirements—Meeting New and Anticipated Competitions with Improved and New Products

H. A. SEIL, Ph.D E. B. PUTT, Ph.C., B.Sc.
SEIL, PUTT & RUSBY, INC.
Analytical and Consulting Chemists
Specialists in the Analysis of Pyrethrum Flowers, Derris Root, Barbasco, or Cube Root—Their Concentrates and Finished Preparations
ESSENTIAL OILS SOAP
16 East 34th Street, New York, N. Y.

STILLWELL AND GLADDING, Inc.
Analytical and Consulting Chemists
Members Association of
Consulting Chemists and Chemical Engineers
130 Cedar Street New York City

LLOYD A. HALL
Analytical and Consulting Chemist
Specializing in the analysis, development, investigation, and improvement of
Soaps, Disinfectants, Cosmetics, Drugs, Polishes and Sanitary Specialties.
RESEARCH—CONSULTATION
1415 W. 37th STREET CHICAGO, ILL.

KILLING
strength of Insecticides
by PEET GRADY METHOD
(Official I. & D. code method) and
PYRETHRINS in PYRETHRUM FLOWERS
(by Gnadinger's Method)
We raised and killed more than 1 million flies in the last 2 years
ILLINOIS CHEMICAL LABORATORIES, INC.
1164 WEST CERMAK ROAD CHICAGO, ILL.

CONSULTANTS
offering their services to manufacturers of soaps and sanitary specialties should apprise the industry of their facilities through this professional card department. SOAP reaches 2,200 manufacturers who need help of a professional nature.

Skinner & Sherman, Inc.
246 Stuart Street, Boston, Mass.
Bacteriologists and Chemists
Disinfectants tested for germicidal value or phenol coefficient by any of the recognized methods.
Research—Analyses—Tests

There is no fee for us to tell you what can be done to improve your products.

Foster D. Snell, Inc.
Chemists-:-Engineers
305 Washington St.,
Brooklyn, N. Y.

Entomological Testing Laboratories, Inc.
We offer you a medium for purchasing insecticides on an intelligent basis.
Entomological testing by the Peet-Grady method, and chemical examination of insecticides are available.
114 E. 32nd St. New York, N. Y.

TAUB LABORATORY
Harry Taub, *Director*
115 West 68th Street, New York City
Analytical and Consulting Chemists
Specializing in Antiseptics, Disinfectants, Insecticides and Cosmetics
Technical Formulae Developed
Phone TRafalgar 7-1733

RAW MATERIAL AND EQUIPMENT GUIDE

(*Continued from page* 114)

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MACHINERY

Blanchard Machine Co. (Soap Powder)
Anthony J. Fries (Soap Dies)
R. G. Haskins Co. (Capping Machinery)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packing Machinery)
Triangle Package Machinery Co. (Packaging Machinery)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

METAL CAPS

Anchor Cap & Closure Corp.
Ferdinand Gutmann & Co.

MISCELLANEOUS

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General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)

OILS AND FATS

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Leghorn Trading Co.
Newman Tallow & Soap Machinery Co.
Theobald Annual By-Products Refinery
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Jos. Turner & Co.

PERFUMING COMPOUNDS

Budd Aromatic Chemical Co.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
A. C. Drury & Co.
Felton Chemical Corp.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Polak's Frutal Works
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

PETROLEUM PRODUCTS

Anderson-Pritchard Oil Corp.
Sherwood Petroleum Co.
L. Sonneborn Sons.

PYRETHRUM AND DERRIS PRODUCTS

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An-Fo Mfg. Co. (Extract)
W. Benkert & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
John Powell & Co.
Sherwood Petroleum Co.
Cyrus Ward & Co.

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Fezandie & Sperrle
Interstate Color Co.
Pylam Products Co.

SOAP DISPENSERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products

SODIUM SILICATE

American Cyanamid & Chemicals Corp.
General Chemical Co.
Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co.
Dobbins Mfg. Co.
Hudson Mfg. Co.
Lowell Sprayer Co.

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John Trageser Steam Copper Works (Pails and Drums)
Wilson & Bennett Mfg. Co. (Pails and Drums)

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Grasselli Chemical Co.
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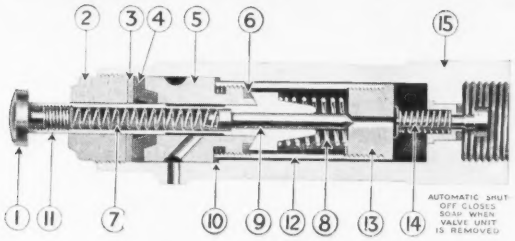

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3. Gasket Washer
4. Plunger Gasket
5. Spacer Bushing
6. Valve Gasket
7. Needle Valve Spring
8. Plunger Spring
9. Needle Valve
10. Shoulder Washer
11. Plunger
12. Unit Shell
13. Rear Bushing
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Custom Milling Division
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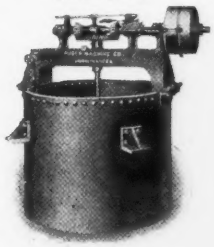

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